

The CENTURY MAGAZINE

Vol 118

July 1929

No 3

THE RECOVERY OF CITIZENSHIP

Democracy and the Individual's Responsibility—the New Politics

HAROLD J. LASKI

IF DEMOCRATIC government is to survive, it must discover means of restoring to the individual citizen his personal initiative and responsibility. For it is difficult not to feel that the scale of modern civilization has of itself done much to deprive him of his freedom. He cannot hope, in populations of the modern size, that his own voice will be clearly heard. To want effectively, he must be part of an organization wide enough, and significant enough, to be able to make its impress upon political authority. The citizen who stands alone to-day is lost. It is as part of a group that he secures the power to fulfil himself.

The classical theory of political democracy has largely proceeded upon quite different lines. It has assumed that as long as the individual citizen has a formally equal share in electing those by whom he is to be governed, his intelligence on the one hand, and the sanction of re-election on the other, will build a state responsive to the wants of the average man. Such assumptions have not been fulfilled in the event. The average man does not seem to

feel that politics are his concern. He prefers to be acted for, rather than to act himself. He does not, either coherently or effectively, feel himself to be part of the actual process of government. He thinks of his rulers as persons apart from his normal life, dealing with matters he can hardly hope to control. He has a sense that the more ample the size and functions of the modern state, the less opportunity he will have to take any important part in the disposal of its business. The number of those who can occupy office, whether central or local, is necessarily fractional; and political significance comes to most, as Rousseau saw, as a brief and pitiful moment at election-time.

Nor can it be said, as classical theory also assumed, that the parliamentary process is an education for the multitude. It was thought that they would read the debates and assert their opinions; and it was elaborately explained that the legislative assembly is a mechanism so nicely constructed as to respond with delicate accuracy to the expression of the popular view. But, in sober fact, the major part of legislative

discussion now centers round problems of a quasi-technical character, the appreciation of which depends upon a sustained and informed intellectual effort which no multitude has either the energy or the knowledge to attempt. And so wide are the regions over which legislative discussion must necessarily travel that the average student of affairs will be hard put to it if he depends upon the proceedings of a legislature for his grasp of the situation. Few, indeed, are the big subjects with which a legislature can adequately cope; many are the themes, some of them of first-rate import, with which it does not concern itself at all. The first business, moreover, of a legislature is to decide; and its procedure is so conceived as to compel it to decision. Our politics, as Lord Balfour has said, are an organized quarrel, in which the necessary pressure of party limits the intensity of illumination which may hope to emerge. It is only the specialist who is not baffled by the bewildering variety of issues which confront him; and even he is not seldom at a loss from sheer ignorance of the wants of that constituency it is, presumably, his business to satisfy.

We are told, of course, and especially by the politicians, that we are governed by public opinion; and we are bidden to consider the way in which a legislative assembly reflects the will of the democracy in being. But the trouble about public opinion is our constant uncertainty as to when it is public, and when it is opinion. Any one, for instance, who wanted to know the nature of English public opinion upon Egypt, or

the control of the electricity supply, or of American public opinion on Nicaragua or Teapot Dome, would be hard put to it to find a response for which any precise measure of accuracy could be affirmed. The statistics of Presidential elections in America suggest, if they suggest anything, a declining public interest in that great struggle for power; and it is notable that, in a recent British by-election, where the deep interest of the voters in the contest was widely commented upon, less than sixty per cent of them went to the poll. In local matters, the situation is even worse; if a third of the electorate registers its vote, the result is considered a triumphant vindication of the representative system. Nor is the position different upon the European continent. The outstanding feature of post-war politics has been apathy tempered by resort to dictatorship; and the essential problems, mainly of an economic character, have been incapable of resolution by the ordinary political mechanisms.

The view, moreover, that the legislative assembly represents the popular will is, at the best, dubious. For the party system limits rigorously the number of wills that can hope to be effective; and the average private member is the creature of the leaders who dominate the caucus of his party. The machinery by which members are chosen narrows both the power to be elected, and the opportunity to choose; and the experience of western Europe seems to suggest that any system of proportional representation that secured an assembly actually mirroring the opinion of the public would destroy the

efficiency not only of the assembly itself, but also of the executive power. The facts that an assembly may be elected on one issue, and then deal with matters for which no mandate from the people is discoverable, that it may be the creature of a passing burst of electoral temper, that there is no coherent way of relating its action to popular desire in the intervals between elections—these facts necessarily introduce grave elements of fiction into the claims that are made on its behalf.

Our political systems, as the nineteenth century conceived them, are, in fact, built upon two assumptions neither of which is adequately founded. The first is a view of human nature as both simple and primarily intellectual in character. It is, on the contrary, extraordinarily complex; and intellect is only one, and not the most powerful, of the varied elements in its being. The second is the belief that the average man is a political animal who, because he is rationally aware of his own self-interest, can be trusted both to provide himself with the necessary materials for judging the government under which he lives, and to act upon the implications those materials convey. These assumptions have had to work in an environment of constantly increasing scale. Scientific discovery has built a unified world out of a congeries of petty towns and disconnected villages; and the citizen of to-day is forced into an international outlook without any experience of what a world-civilization means. These assumptions, further, have had to work in states which have been

forced by the logic of their institutional systems into a centralization forever increasing; even in federal America it is the shadow of State-sovereignty, and not the substance, that survives. These factors, and others like them, have meant the increasing separation of the individual citizen from the source of decision. So much has to be done, so remote is the ambit of decision from his daily contacts, that he becomes, increasingly, the mere recipient of orders he has to obey—orders in the issuing of which no search has been made for his consent, no demand for his scrutiny. That opportunity to contribute his instructed judgment to the public good which is, as the Greeks saw, the essence of citizenship, is no longer within his power. Our scale of life, and our method of responding to its wants, have made him a private person to whom politics is a matter of episodic and tangential interest. We use neither his knowledge of his wants, nor his capacity to express the meaning he has found in his experience of life.

The error, indeed, is not merely institutional, though its main roots are there. The failure to find suitable units of governmental reference is a capital one, simply because the necessary consequence of what we have is a deficiency in civic interest and knowledge. It takes high drama, a war, a financial scandal, the defeat of a minister, to make the man in the street aware of his governors. Yet the theory is that the action of those governors is kept adequate and honorable by his persistent scrutiny. Kindred errors are: the educational sin which, for most, cuts short the process of training in the art of

thought exactly at the point where knowledge begins to exert its fascination, and the grim facts of an economic system which makes demands upon the vast majority too intense to leave them with energy or leisure for intellectual effort. Machine-technology fashions its subjects in its own image; and they have become tools in human shape whom an imaginative reconstruction of our institutions might have made free men.



There is a good deal of ruin in a nation, said Adam Smith; and certainly, the capacity for self-regeneration in human nature is one of the most hopeful aspects of social life. Alongside political institutions but partially adapted to the needs of our time, men have built innumerable voluntary institutions to express deeply felt needs which have escaped the categories of political expression. They represent, in their formidable complexity, a spontaneity and a will to self-realization of which it is difficult to exaggerate the significance. They lack, for the most part, the compulsory formalism of legal institutions. They depend, much more surely than the political state, upon their power to satisfy the wants of their members. They respond, simply because they are voluntary in origin, much more quickly and fully to the experience they embody. They display in their internal life a remarkable intensity of effort. A trade union, a local chamber of commerce, a professional association, a neighborhood guild, around these can be built for their members a life that appears far more full than the life offered to them as mere members

of the state. Around them is built a system of allegiances, which, as the history of churches and trade-unions makes evident, no state can afford to neglect. Our problem is their proper exploitation for a communal end; and that can only be achieved as the influences, amazing in their creative diversity, are integrated with the political system. For as we use the experience they embody, we bring into contact with the state the fused wants of innumerable citizens whose wills can hardly hope, in any other articulate and coherent form, to reach the central focus of power. As we use them, we become aware of meaning in individual lives which otherwise escapes the notice of those who seek to probe the unexpressed wills of individual citizens in their purely political relations. To become aware of that meaning is to become more capable of entering the inner hearts of men than the classic theory makes possible.

We need not deny that the diversity, often enough, means antagonism. There is no necessary unity in society; there is no plane upon which, in some mysterious alchemy, the will, say of the Governor of the Bank of England, becomes one with the will of the Third International. What there is of unity in society is of our deliberate making, and any careful scrutiny of its character will show that, at best, it is fragmentary and incomplete. The function of coördinating these diversities into a unity sufficient for law and order we intrust, for the most part, to the state. But we too rarely inquire into the purposes of coördination, and, still more rarely, into the methods

by which it can be most successfully achieved. The state, as a general rule, translates into law merely those wills that are strong enough to make effective their power of self-expression, and its legal process converts automatically power into right. Yet, obviously, it is essential to inquire whether those wills deserve, on the facts, the expression they receive. For the whole implied purpose of a democratic system is its assumption that each individual citizen is, equally with any other, entitled to find the avenues of satisfaction fully open to him. He has demands to make upon life. The business of the state is to make possible for him the realization of those demands. As he makes them, he has an experience of the problems to be faced, the difficulties to be overcome, of unique value to the ultimate task of successful coördination. It is only as the state can catch the meaning of what the individual citizen has known and intimately felt, only as it finds his experience made articulate, that it can know the purpose it must make real in its proper proportions.



Any geographical system of political structure is inadequate to embody the lives it seeks to express. For no small part of the lives of men escapes altogether the geographical classifications upon which the state mainly relies for the purpose of finding their wants. A citizen of London or New York has, quite unquestionably, vital interests in common with other citizens of London or New York. He needs, as they need, proper drainage, a satisfactory supply of water and electricity, a smooth

and continuous system of transport, good schools for his children within reasonable distance of his home. But he has interests, too, which cannot be expressed in terms of geographical neighborhood. He may be a teacher, concerned with other members of his profession, to maintain in his occupation certain standards of technique and reward. He may be a business man to whom, with others of his particular branch of commerce, the preservation of free trade is of paramount importance. He may be a protagonist of the doctrine that the well-being of peoples depends upon the reduction of armaments, or an ardent communist to whom Moscow is his spiritual home; in either case his main allegiance may belong to an international organization which decisively rejects the finality of state decisions.

It is obvious that the interests represented by these spiritual relationships are independent altogether of geographical conditions; and it is important that they should be brought into direct contact with the formal activity of the state. At present, the groups representing these specific interests have little opportunity for making known their wants. They are dependent, in the largest degree, upon their power to impress political parties; and these, in their turn, are partly a generalized expression of certain habits of economic power, and, partly (above all in their non-economic aspects) the brokers of ideas which they believe will be acceptable to the unknown multitude. In the process of time, the element of chance determines the fortune of a party to a degree that is baffling in its complexity. The

history of modern England might have been notably different if Mr. Joseph Chamberlain had remained in the Liberal party; and no one can read the history of his separation from it without the sense that, at least in its origins, the differences of outlook were born of temperamental rather than of intellectual antagonisms. No one, either, can measure how much loss the world has suffered by President Wilson's decision to make the acceptance by America of the League of Nations a matter of party triumph instead of national consent.

Our business is, as best we may, to make the experiences of men, and the demands they build out of those experiences, available directly, instead of indirectly, to the state as coördinator. They cannot themselves be allowed to dominate the process of government. But they can be given such an integral relationship with that process as to make it far more certain than now that the felt wants of men have been properly weighed in the making of decisions which affect them. From one angle of vision, this means an effort at the decentralization of the modern state, a return to wider local responsibilities and powers, and the discovery of suitable areas upon which to confer them. For no one can look at the present over-burdened legislature in England or France or America without seeing, as Lamennais said, that centralization results in apoplexy at the center, and anemia at the extremities.

That is, however, only one aspect of a new political orientation. We need the decentralized state; but we need also the functional state. The

society we encounter in daily life is inherently federal in character. There are not only spatial units, like London and Yorkshire, New York and Kansas; there are also what may be termed interest-units, like the Methodist Church, the legal profession, the cotton industry. Every problem of government presented by units of space is presented also by units of interest. Even their interconnections are not dissimilar in character; and they present, also, a wider international aspect, which in all probability, has immense significance for the future. These interest-units consolidate their lives, and build about themselves a system of control which no student of government can afford to neglect. In some degree, indeed, we recognize the reality of the common life they have created. We accord to professions like the bar and medicine, for instance, a power of self-direction which becomes the more remarkable, the more carefully it is scrutinized. And within its limits, each of these interest-units will be found to display all the characteristic appearances of a state. It decides upon the terms of admission to its ranks. It has the analogue of a penal code in its professional standard of conduct. It elects a governing body which seeks to maintain the welfare of its constituency against the competing welfares of other bodies; just as the government of a state seeks to preserve the strength of its own community amid the competition of other states. It is, moreover, important to note the effect of this corporate life upon those who participate in it. No one who knows the internal life of a great trade-union,

the Miners' Federation in Great Britain, or the United Garment Workers in the United States, can doubt that the impress of this corporate activity builds for many the channels through which their desires can be made most effective, the fulfilment of their personalities most complete. To utilize them as a source of knowledge and responsibility is one of the most urgent tasks of our time.



The general outlook that is here emphasized results in a twofold demand. On the one hand, it demands new and supplementary institutions within the pattern, both central and local, of the state as we now know it; on the other, it urges that we need to devolve a much wider range of definite governmental responsibility upon the interest-units that exist on every side. In the realm of traditional institutions that means two things. It means, first of all, reversing the historic process of giving to local territorial units only those powers which the central legislature is willing to confide to them, and insisting, instead, that they are entitled to experiment in any direction not definitely forbidden by statute. The value of local initiative of this kind cannot easily be exaggerated. Not only does it provide a pattern for others to imitate and to improve; but it also provokes the coöperation of men not hitherto awake to the significance of government. No one who is aware of the triumphs of municipal enterprise in Germany will doubt the value of local decentralization of this kind. It not only encourages local responsibility, but it also minimizes the cost of that

responsibility to the community as a whole. It not only lessens the pressure of local affairs upon the central legislature of the state; it also provides a means, not otherwise available, of stimulating local pride in civic achievement, and, inferentially, of associating local effort with the task of government in a much more creative way than is now possible. For many to whom gas and water politics are permanently unattractive will be drawn into an interest in local functions once the area over which these extend is dependent largely upon the local will. When it is possible, for example, to make provision for dramatic enterprise a natural branch of local government activity, it will be found that there exists in each area, a largely untapped source of public energy waiting to be used; and the energy which begins by confining itself to the drama will quickly find that the proper use of a local theater inevitably communicates energy to the schools, and thence, as inevitably, to the homes of the people.

Such a change, indeed, is not in any sense a large one; it is in the realm of supplementary institutions that novelty is most called for. And here wisdom begins by the recognition of the value in government of advisory bodies. The possibilities they embody are not now a mere matter of faith. Sir Arthur Salter is probably the most distinguished European official of the post-war period. "Advisory Committees," he writes, "are an invaluable instrument for breaking administrative measures on the back of the public. Modern government often involves action affecting the interests, and requiring

the good-will, either of large sections of the community, or of the community as a whole. . . . In such cases, the prior explanation and the assent of committees of representative men who, if convinced, will carry the assent of the several sections of the community, will be of the greatest possible value." Lord Haldane was admittedly the greatest British administrator of the last fifty years. "We think," he wrote of advisory committees, "that the more they are regarded as an integral part of the normal organization of a department, the more will Ministers be able to command the confidence of Parliament and the public in their administration of services which seem likely, in an increasing degree, to affect the lives of large sections of the community."

Such advisory committees ought to have an integral place both in central and local government. How ought they to be composed, and what should they do? First of all, their members should be representative of interests affected, and not merely nominated by Ministers or officials. An advisory committee on education should, at least as to the majority of its members, be nominated by association of teachers, of superintendents of education, of parents. These can speak with an authority to which no personal nominees can ever pretend. When they suggest, or criticize, or investigate, there is behind them an already organized and alert opinion which assures attention for what they have to say. It is important, secondly, to split up these bodies into their proper categories. An advisory body on education, for instance, would be, for the

most part worthless, if given jurisdiction over the whole educational field. What is needed is a system of committees on primary education, secondary education, the work of the university, technical instruction and so forth. Anything a government, whether local or central, proposed to do in each of these fields would then be submitted to an examination from those most competent to judge. And we should have, by this means, a much-needed check upon both the never-ending audacity of the elected person, and the otherwise inevitable tendency of the official to bureaucracy. We should give to these interest-units a power of direct impact upon the work of government which they do not possess in any coherent way. We should rectify the inadequacy of purely territorial representation by putting an element of functional representation at exactly that focal point where decisions are made. We should assure thereby the certainty that whatever representative opinion existed upon the policy of government, would be properly weighed. And the knowledge that it was to receive such consideration would, I believe, awaken an intensity of interest in the process of politics, which has now no channels of this kind through which to work.



What, then, would such committees do? Their function, I think, should be not unlike that which Bagehot attributed to the English Crown: they should advise, encourage and warn. The Government should be bound to submit to them for counsel and suggestion all legislative proposals upon which it in-

tended to embark. They should have the right, further, to make suggestions for activities, and, where they thought fit, to embark upon investigations in realms where, as they believed, either inquiry or new knowledge was advisable. Wherever problems arose which interest more than one committee it would be a simple matter to submit it to both, and if necessary to have a joint meeting of them for its consideration. When a measure came before a municipal council or a legislative assembly, we should then have the assurance that it had been discussed and dissected by those who were to be affected by its results. We should know that it had not been brought forward without being subject to the criticism of representative opinion upon its probable consequence. We should end a good deal of ignorant legislation; and we should make at least supremely difficult a good deal of corrupt legislation. A bad electricity bill would be assured of basic attack from the organized voice of engineering opinion; and this, in its turn, would stimulate alert opinion outside the ranks of the technicians. The method, in short, enables us to create support for a good bill and attack upon a bad one. It prevents the process of government from being secretive and haphazard and ill-informed. It brings to bear upon its habits the pressure of informed opinion; and, thereby, it awakens to knowledge and interest, uninformed opinion outside.

Every reason, moreover, for the creation of these advisory bodies at London or Washington or Paris, is a reason for their existence in Manchester or Albany or Bordeaux.

There is just as much cause for the local analysis, by informed opinion, of a health program in St. Louis, as for central analysis of tariff policy at Washington. Any one who thinks for a moment of the valuable suggestions a local committee on railway service or electricity or the telephone service, has to supply, will see the possibilities they offer. Here, at least, is a real way of preventing the atmosphere of administration from degenerating into the issue of orders, on the one hand, and their indifferent acceptance on the other. It provides means for utilizing the services of men who now avoid public life, either because they are unwilling to undergo the process of election, or because their interest is not in the general complex of governmental functions, but in a single aspect of that complex. The system popularizes the administrative process by widening the area of persons who are competent to scrutinize it. It provides for a constant interchange of opinion between the center and the circumference of government. Because the system is advisory and not executive in character, it leaves simple and intelligible the ultimate institutions, and it does not make authority degenerate into anarchy by the indefinite division of power. It prevents it from becoming autocratic by subjecting it, at each stage, to the pressure of an opinion usually specially competent, and always specially interested; and it assures a hearing for that opinion. It brings the organized interests of men, their churches, their trade-unions, their chambers of commerce, into a definite relation with the central and local governments. It makes it

possible for those activities to bear the impress of external opinion by subjecting them to a constant stream of criticism and inquiry. It multiplies, in a word, the sources through which the citizen's personality may be made significant. That, after all, is the purpose of democracy.

~*~

But the thesis which underlies this notion offers, in its second aspect, even wider, if remoter, possibilities. I have argued that interest-units present problems of government as real as those of territorial units. And exactly as decentralization in the territorial sphere is by all odds the best method for the evocation of responsibility, so also, I suggest, the conferring of definite governmental responsibility upon interest-units would have a similarly desirable result. To some extent, we have already recognized that fact. We perceive definite advantages in conferring wide powers of self-government upon the professions; and even when the largest area of failure is taken into account, the standards of medicine, the law, engineering, remain notably high. Our problem is the transformation, as Justice Brandeis has put it, of business into a profession. We need to give it the same organized and coherent relation to government in order to elicit a morale of equal quality. To do so, we need to form in each industry associations both of manufacturers and of workers by hand and by brain so as to secure within its confines an industrial council upon which powers may be devolved. Such a council would normally be representative of four interests. There is the interest of owners; there is the interest of the

non-owning producer; there is the interest of direct users of the product of the industry; there is the interest, finally, of government as the body concerned with the protection of the public as a whole. If each of the parties were equally represented on the council; if membership of the associations representing ownership and the vocations were compulsory; the council might well within the ambit of national or state legislation, issue orders binding upon the industry as a whole. I see no reason, further, why each council should not possess a judicial department with the right to inflict penalties for the evasion of its orders, and to see that national legislation upon such matters as hours of labor, or factory conditions, are properly observed. There might well be, further, a division of arbitration and conciliation to minimize, within the trade, the sphere of industrial conflict. It is, in short, desirable to attempt, as in the professions, to make responsibility for what may be called the morale of industry a matter which explicitly, and as a matter of government, concerns those who are engaged in its operation.

I can, of course, only set out here in general terms the functions of such a council, for the different conditions of particular industries would involve variety both of function and of structure. But two things may be said. I am here deliberately proposing the transference of governmental institutions to industry in order to evoke in it a sense of industrial citizenship; I am desirous that a man should feel that, as a coal-operator or a miner, he is as really a citizen of a

great city, as he is in his capacity as an American or a resident of Pittsburgh. And it is, secondly, important to realize that, within the sphere of function, it is just as possible to decentralize authority as it is in the geographical sphere. Exactly as there is a government for America and a government for Illinois, so there could be a government for the coal industry of America and one for the coal industry of Illinois. If we can teach a man that the responsibilities of his position as producer create exactly the responsibilities, give birth to exactly the same opportunities of statesmanship, as the process of what is normally called politics, we shall, as I believe, do much to awaken in him energies and experiences the import of which he is now only partly aware of. And it is in that awakening that there lies our main hope of revivifying the life of the modern political state.



What, then, might be the jurisdiction of these councils? They would discuss, and issue orders upon, (1) the wages, working-conditions and hours of labor in the industry; (2) the stabilization of employment and production; (3) the settlement of industrial disputes; (4) the collection of information upon all matters pertaining to the industry, for example, statistics of cost and output, methods of manufacture and salesmanship; (5) facilities for the consideration of inventions in machinery and methods, with the provision of safeguards for their divisers; (6) investigation of special problems in the industry, with particular reference to foreign experience; (7) re-

search into the health conditions of the industry, with special reference to the use of noxious materials; (8) supervision of apprenticeship in the industry; (9) organization of technical education; (10) the provision of necessary publicity, especially abroad. And besides this, such councils would serve as a link between the industry and the political state, and also coöperate, where necessary, with the councils of other industries on matters of joint interest.

If we conceive of interest-units in such a fashion, it is obvious that from their representative institutions we can build a definite vehicle of expression for men whose experience of life is, in these fields, either not known at all, or, at best, only known in a very fragmentary way. We can build within them, also, definite avenues of statesmanship. A man in the mining industry with something to say can address an audience fitted by its expert knowledge or experience for response to his ideas. He will not, as now, have to seek the ear of men untrained in his particular experience, and distracted by a hundred competing problems about each of which they can necessarily know little. And by such multiplication of the centers of authority, we go far toward the democratization of the state. Our civilization is, for the most part, built upon the assumption that power belongs to a few, and our institutions have been constructed to make those few retain their power. Largely, they are not democratic institutions, because they do not attempt to take account of the mass of experience affected by their working. They have disregarded the wants, and, therefore,

the rights of the common man. He has repaid their neglect by an indifference which involves their general inadequacy; and there has always come a time when that inadequacy, as it is prolonged, issues in a catastrophic consequence.



The old politics was built upon a principle of hierarchy; the few ruling over the many with a technique of consultation which at best was interstitial and haphazard, and, at the worst, a pretense in which no one believed. The new politics seeks a creative coördination in which the state is less a sovereign power standing over against its members, than a community of communities integrating their experiences in terms of the widest possible examination of these experiences. Its law, that is to say, will be less the command of an authority which imposes itself by its sanctions, and more the expression of relations found adequate in the lives of men. To the end that those relations will be rightly interpreted, it will create institutions for the systematic organization of experience, and its not less systematic interpretation. It will build its conclusions upon an induction to which each interest in the community has contributed its proper share. It will recognize that if it is natural for Manchester to determine its water-supply it is natural, also, for the cotton industry to determine the terms upon which its apprentices are trained to their vocation.

The coördinating authority may still be chosen by persons who are not differentiated as they choose by the professions to which they belong. That absence of differentiation is, I

think, essential because it is simple, and it involves a final power in government conceived upon a territorial basis. But the groups we encounter in social and industrial life need to be federally related to the government if the decisions of the latter are to be wise. That means, as I have urged, giving to those groups the means of prior and organic influence with government before it pronounces upon the problems of co-ordination. It means weighing their opinions, seeking their criticisms, meeting their special needs. It means, further, allowing them responsibility in their own life, by the deliberate conference of power over their own affairs. It means, for example, that the Industrial Council of the mining industry could force upon its constituents a pension scheme for aged or crippled miners. It involves, broadly speaking, less direct administration by the state, and a more flexible application of its statutes in terms of the varying situations to which they apply. It conceives, accordingly, of state-made laws essentially as minimum solutions; it leaves to the interests they affect the power and the obligation to implement them. The result, doubtless, will be a more intricate world; but its structure will multiply the chance of creativeness.



The political organization that we know is, for the most part, the response to needs and problems which are now largely obsolete. We confront a new epoch, and we require an institutional scheme more fitted to meet the issues that it raises. In the past, it cannot be said that a recognition of the dignity of

human nature was an implied function of the state; in the present, no state can long deny that the degree of its recognition is the measure of its power. No state, accordingly, can hope, in the long run, for survival save as it knows the minds and hearts of its citizens; for upon no other condition can it, in the end, retain their allegiance.

To win that knowledge, it must utilize their experience. It must regard itself as a system of coöperating interests in which, and through which, the individual finds his scheme of values. The state of our time must

make its authority valid not by the sanctions it can enforce, but by the sense it creates in each of us that its activities are a genuine response to our experience. But to create that sense, it must penetrate within our lives. It must relate to itself the fellowships we have built as avenues for the expression of personal values. As it experiments with them it will come more fully to understand the wants of human nature; and from increasing knowledge, will come increasing power of fulfilment. In no other spirit can it meet the challenge of a new time.

SKEPTICISM

RUTH FORBES ELIOT

This faith which I repudiate
I saw disproved by common grief,
Saw fearless doubt annihilate
The citadel of my belief.

So I proclaim with my last breath
Quaint heresies, securely won:
I am incredulous of Death,
I do not trust Oblivion!

TREASURES ON EARTH

An Adventure in Search of Memories

ELISABETH FINLEY THOMAS

As Travers crossed the Piazza, the marble whiteness of Santa Maria Novella, burnished by the sun of a late April afternoon, so blinded him that he had to pause for a moment in the cool darkness of the portico, until the waves of blue and purple, subsiding before his eyes, could reveal the tall dignity of the nave.

Long years of residence in Florence had not staled his custom, whenever he passed the square, of turning aside into the great basilica and of dropping into one of the carven stalls behind the altar to look up for a quieting moment at the soft grays, tender pinks and mellowed yellows in which Ghirlandaio visioned in his fresco the visit of Saint Elizabeth to Mary. A cloud to-day on its way from the Tuscan hills must have shadowed the choir to more than its usual dimness for, after he had found his habitual corner, it was a few seconds before he became aware of a living figure below the gracious forms of the suavely welcoming Santissima Maria and her eager guest; a figure so completely in harmony with the group above it that it seemed to have slipped from its place upon the pictured wall to its present station on the stone pavement. The illusion was complete

enough to make him glance upward hastily, to see if a space among the gentle company encircling the Virgin and her friend, had been left empty; but not one of the faithful attendants of the two holy women proved to be missing. The lady, however, who thus undeniably belonged to the sisterhood upon the wall was, upon inspection, no optical delusion. She stood slanting forward a little, a book open between her hands. A long gray cloak swept a line behind her from neck to floor, and a veil, mist gray also, half hid her profile.

He wondered if he had unconsciously ejaculated his astonishment, for she let fall her volume, though the face she turned toward him bore an unruffled expression of medieval calm. Hair, softly graying, blanded cheeks whence the fleeting colors of youth had faded, leaving on their pale blandness no trace of perplexities or confusions. Instantly and quite contrary to his usual habit of reticence, Travers felt a desire to speak to her. The recovery of the book gave him the needed pretext and, as he held it out to her, he noted the smooth fineness of the tooled leather in which it was bound.

She did not thank him with any banality of words, only swayed forward in acknowledgment of his

gesture, saying as she met his glance with a fine assumption of mutual understanding and a hand raised lightly toward the frescoes, "What one finds here!" The accent was his native one. "Massachusetts at its best!" he reflected as he answered, "Personally I have found so much, that I cannot leave it after thirty years!"

"Thirty years!" she sighed, "and I have had only as many days here!"

"Surely you can make it longer?" he queried, adding in quick sympathy for the meagerness of her opportunity. "However, one can catch the vision in thirty days if one has the eye, as I am sure you have, since you belong here."

"How do you mean?"

"You dropped down from the Ghirlandaio!" he explained. To his surprise she received his statement simply and he found himself explaining to the faintest questioning of an arched eyebrow, as she smiled acceptance of his fable that she had strayed from the Middle Ages, as part of the general magic of the place.

"From the very first moment it seemed like coming home," she assured him. "You see I had been acquainted with them all so long, had lived with their photographs for years, as one lives with the pictures of relatives one has not seen, yet has wished to know!" She made a wistful gesture toward Cimabue's "Madonna" and the Orcagnas.

The Tuscan cloud deepening suddenly dimmed the contours of the old story on the walls of the choir to a mere blur of delicate tonalties. A curly headed acolyte, irreverently humming "Valencia," appeared with a taper at the end of a long pole to

light the candles for vespers. An invasion of tourists, Cook-guarded, filled the chapel suddenly with cackling comment, chiefly unfavorable to the impaired condition of the frescoes.

Travers shuddered. "Shall we go?" he said hurriedly.

"They have not quite found it, have they?" The gray lady spoke in gentle extenuation of their compatriots' lack of comprehension, "but they all want it. That's what they come for. Every one wants beauty. It's a long journey for many of them and it means sacrifice for our people." The cloak she drew about her thin shoulders might have been the mantle of Charity he thought, and as they moved together down the aisle a shaft of many-colored lights from a stained-glass window enveloped her for a moment, touching its grayness to splendor.

Outside a sudden spatter of spring rain was sending the doves scurrying for shelter amid the cornices.

Travers had half expected the delicate unreality of his companion to evaporate in the free air or, what would be worse, to become vulgarized by the open glare of day; but the slender drab figure at his side still exhaled its curious charm of quaint refinement. She held out a small gloved hand. Everything about her was simple almost to insufficiency, yet somehow informed with a certain elegance.

"I shall keep my meeting with you among my choicest remembrances. It will be one more thing to take home!" She began to unroll a prim umbrella.

The heavy drops of the shower

gave him a cue. He hailed a passing cab. "At least permit me to drive you to your hotel."

"Via Tornabuoni nine, Pensione Piccione," she gave the address. "I always stay at a good pension," she explained. "One gets more local color than in a hotel and of course my means do not allow—" she broke off. "But I invariably select one that is not grubby or ugly. The Piccione was formerly a medieval palace. My bedroom has fine arches, though the stone floor is cold and they have heated it rather poorly."

Travers, glancing down at her, envisaged the dreariness of the Piccione, where he had once called on an impecunious art student. "Perhaps," he ventured, "you might care to come to tea with me now at my villa. It is Oltrarno, on the other side of the river, and my housekeeper is sure to have the kettle boiling at this hour. There is a nice view of the Duomo and the Campanile from the terrace. Does that not tempt you?"

Travers had a faculty for the charming of ladies, often, in contrast to the present case, by his indifference; but he at once recognized that her enthusiastic acceptance was responsive to Florence rather than to his personal attractions.

"A villa in Florence!" A pink flush tinged her cheeks, an evening glow on her snows.

The sudden rain ceased before they had rattled across the Ponte Vecchio and the *cocchiere* cracking his whip and setting his tall hat happily askew, began a florid rendition of "Santa Lucia" punctuated with imprecations to his horse who balked at the steep ascent of the

Costa San Giorgio. When the cab presently became wedged, for a moment, sidewise in the narrow street, the laugh of the little gray lady beside Travers tinkled like silver bells. Looking down at her he discerned that her eyes were shining between crinkled lids. "Everything happens right in Italy!" she declared appreciatively.

At the top of the road there was a yellow wall. Two cypresses guarded it on one side—"in precisely the proper juxtaposition!" commented his visitor—and a cascade of wistaria fell over the doorway. Travers jumped out to pull the long bell-handle. He pointed to the brass plaque upon the gate—E. Travers, Villa Sonnolino. "I had forgotten to introduce myself," he said, as he climbed back beside her.

"I am so glad that your name is romantic. Mine is quite homespun! Cornelia Morrow! . . . Miss," she added, redundantly he thought.

Giovanni the *portiere* had opened the gate with many smiles and the *cocchiere*, flourishing an intricate arabesque with his whip, trilled a magnificent falsetto finale to wind up "Santa Lucia" as he took the small curve before Travers's door-step.

He helped her to alight and watched her as she faced the villa covered by the clinging flattery of anemone roses. All the air was sweetened with the scent of lilies-of-the-valley. For a moment she drank it in. Then she said most surprisingly, "What a place to be young in! Or old!" she added quickly. "One must not mind if the sequence is not quite—"

"Time, as we who live here come to know, is but an arbitrary division

of eternity," he consoled her. Then the door flung wide dispelled the ghost of her regret.

She moved, her hands clasped before her in an ecstasy, toward the arch at the farther end of the hallway, the arch that framed the vision of Florence, Dante's *Fiorenza la Bella*, spread out in the blue and gold translucence of late afternoon, the bell-like dome of the cathedral resting so lightly on its walls that, as a friend of Travers had often said, one felt that an omnipotent hand might lift it at any moment into heaven; the lily-like stalk of the Campanile; the warm golden flower of the Signoria, all outlined against the hills of Fiesole wearing to-night their rainbow mantle of greens and purples and pinks, studded with the gleaming pearls of white villas; sparkling with the diamonds of flashing sun-touched windows.



Straight through the house walked Miss Cornelia Morrow drawn, quite unconscious of Travers's presence, to the terrace. And Travers silent and reading clear upon her face the record of a spirit's past starvation and its present appeasement, let her slake her thirst.

It was Santina, the housekeeper, who broke the spell with the announcement that tea was served in the Salotto Verde. The "Green Salon," so called because of the long window-curtains that were never drawn, afforded the same view as the terrace, throwing in, for good measure, the height of San Miniato. But Travers was presently to observe that though he had placed Miss Morrow's chair in relation to this fact, the subtleties of the interior

were not lost upon her. She handled the cup of ancient Capo di Monte, with innate reverence for its quality, and her appreciative gaze wandered from his two Old Masters, School of Perugino, and an authentic Lippo Lippi, to the fine casting of a bronze justifiably attributable to Cellini. Nor did the apt richness of his bits of damask escape her.

What exactly *was* she, he wondered, as he waited for the appropriate moment of more intimate self-revelation. It came presently in answer to his admission that he was by way of being something of a collector. She was touching an ivory on a small table with a gently caressing finger and said smiling across at him whimsically, "I am a collector too!"

"Of what?"

"Of memories. To-day will be one of them."

He did not answer, knowing that she would go on.

"All my life I've wanted to collect them—experience—adventure—beauty. But my diary in Ashfield was always a record of what did not happen!" she laughed ruefully.

"Ashfield!" cried Travers, surprised to swift remembrance of a visit to one of his Harvard professors. "A most Wordsworthian village and full of culture! I recall picking up Norton's translation of Dante's '*Divina Commedia*' on a farm-house table and finding it thumbled!"

"Exactly! We all live on the rich intellectual crumbs from the tables of the two great men who passed their summers there; but one never had a full meal and *l'appétit vient en mangeant*." She pronounced the words with laborious precision.

Travers was all sympathetic assent. Italy strained through the Harvard sieve, he thought, must have lost much of its savor.

"Twenty years ago," continued Miss Morrow, "I began—another lump please! I intend to be thoroughly dissipated!—I began to save for this journey. There are an enormous number of things one can do without in Ashfield, sugar, for instance. In several forms I mean."

"Really," thought Travers, "she is priceless."

"You see my youth had been for one reason and another, so starved of event that I began to wonder what old age would be like with nothing to remember. That is why I decided to become a collector. And, you see I am one!" she ended rather lamely. "My chance came this year," she resumed. "My niece, an orphan left in my care, married. I was free. Against the counsels of my financial adviser," the phrase was amusingly grandiloquent, "I helped myself to a slice of capital and here I am!" She spread her hands, laughing like a girl. "It was a choice between beauty or comfort in my very old age. I am past sixty now. But who could hesitate? I gave the preference to beauty. Every night I write out the details of my travels in my diary. I assure you it begins to gleam like the missals in San Marco. It will keep me warmer in the final decades than the extra coals I may have to save when I get back; or the fur coat I cannot buy. I dare not afford the purchase of beautiful objects such as you have here. Poor imitations I do not want, but my Collection will be superb, nevertheless."

"I am sure of it," Travers's assur-

ance was as enthusiastic as it was sincere. He wanted to give her more, to pile on the colors, the gold leaf. An idea came to him, but he did not dare yet to broach it. Instead he essayed diplomatically to whet her appetite with tales of hidden treasures, pictures, sculptures, concealed in the villas of Valdarno. He described the enchantments of gardens, terraces, cloisters. She followed him with eager, half wistful interest. He discovered that she had read Ruskin, Berenson, Bode. Twilight was closing in. Finally she rose lingeringly, almost heavily.

"Good-by! I shall be leaving in a day or two. The Piccione is rather expensive and I must see Assisi on my way to Rome."

Then he sprung it at her: "Why don't you stay as my guest here for a fortnight? Santina will make you comfortable and the white wistaria in the garden will be coming out and—"

She stopped short on the threshold, nervously fingering the clasp of her bag, arrested by the splendor of the vision, yet conscientiously seeking scrupulous objections.

"There aren't any reasons!" Travers contradicted her hesitations before they were uttered. "Take the hour at the flood. Stay now! Santina will go down to the pension and pack your luggage." He swept her on.

"I've only a few things!" she showed him her wavering.

"You see!" he triumphed.

Suddenly she threw back her cloak with a bold gesture: "I'll stay. It's the great adventure and I'm going to have it for the Collection." As if to emphasize the determination of her

surrender, she sat down on the nearest chair.

At the other end of the long refectory table, the tall candles flaming above her, she did not disappoint him. It had always been a pet theory of his that an intrinsically perfect object was seldom incongruous in any surrounding. He had collected on that principle, sedulously avoiding second bests. And now his latest find, this exquisitely pallid New England spinster, came up, as he had felt sure she would to all his standards. Her dress, made she told him for the occasion of her niece's wedding, was of mauve taffeta, finished with a flat collar of real lace fastened by a brooch of tiny seed-pearls. Touches of the same nacreous white, showed in the points of long earrings depending below the smooth bandeaux of her hair.

"I am admitting that age has its privileges!" She looked half shyly across at him and fingered her Venetian glass of Asti Spumante. "If I were young it would scarcely be more romantic, but it would have been impossible! My being here I mean."

For the first time she had made a personal allusion and Travers, accustomed even at forty-five, to universal recognition as an adventurous potentiality, felt the familiar caress to his masculine vanity and liked her the better for it.

"Let us drink to the sixth decade!" he lifted his goblet, "and, permit me to add, that to-night I appreciate its charms as much as you do its privileges."

She blushed happily.

"Asti is a woman's wine," he went

on, lest he should embarrass her, "but, perhaps you might prefer one with a richer bouquet?"

"All I know is that it is golden." She beamed at him, holding it to the light. Little flames from the candles danced in the eyes dimmed to the dove tint of age. He saw her as she might have been, lovely and loved, and he resolved more than ever, recalling the American phraseology, to give her "a good time."

Travers's adventures had been many. The heavy scent of them was in his nostrils, but this quaint interlude had the faint perfume of lilacs.

She ate little but savoringly and Travers was sure that the perfection of his chef's cooking did not escape her. When Giovanni had finally placed upon the table the chiseled bowl of old silver, filled with fruit and nuts, Travers began to plan openly: "I shall give a real party in your honor. Duse must stand on my terrace in the moonlight, she is at Poppi now. You must meet our great art critic of the Cinquecento and his lovely wife whom he stole from an Austrian archduke—that is, if you can lay aside, for an evening, your New England prejudices?"

"Prejudices are too angular for Italy! Besides I have forgotten them!" Again just the right word, thought Travers.

And so he waved his wand and evoked for his guest a world that must have figured the very tissue of her dreams. The greatest actress in Italy came at his bidding and dropped on a starry night the matchless strophes of Dante, like pearls, into the Arno, while Miss Cornelia Morrow of Ashfield, Massachusetts,

sat between the finest painter of his time and a famous writer and listened later to talk that made the dawn seem too hasty. Rapt and quite unselfconscious, she placed her word here and there with a simplicity that was invariably apposite.

"How can you explain her?" asked the entranced artist as he took his leave, having already asked her to pose for him.

"I can't," said Travers. "She just happened, I suppose—like genius."

In the weeks that followed he spread the treasures of Tuscany before her with lavish hands. The Diary, extracts from which she read to him every evening, lacked no splendor that he could contribute. In the azure days he motored her to where the fairy towers of San Gimignano rose above the plain. He saw her bend to pick the primroses and violets of Vallombrosa; he led her through the cloisters of Camaldoli; his friends in the stately villas of Fiesole opened their doors to her. Travers's protégée became the rage in the sophisticated groups of Valdarno, and Carton painted his immortal portrait of Miss Cornelia Morrow, which hangs to-day in the Tate Gallery and forms an intrinsic part of its glory.

When it was all over and the day came for her to go, she did not mar the perfection of her visit by any sadness. Travers put her on the train, her arms full of flowers, held brightly against the dove gray of her mantle. She touched her bag where the Diary was safely tucked away. "My Collection!" she said, her eyes shining with a fulfilment beyond all expectation, "you have gilded the future for me forever."

For succeeding years, Travers heard occasionally from Miss Morrow and on each anniversary of her visit he sent her some trifle in remembrance; a bit of old lace or a yard of damask and once a quaint carving. Then suddenly her letters ceased and he received no answers to his continued approaches. Meanwhile his well-known affair with the beautiful Marchese Stozzoli, involved him in personal confusions that left him little thought for other interests.

When, however, the death and testamentary dispositions of his sole remaining relative in America took him, a Florentine Rip Van Winkle, back to an unrecognizable and perplexing native land, he motored to Ashfield to see what had become of his charming old friend, the Collector.

The village, elm-shaded, presented no difficulties of typography and he easily found the white cottage, green-shuttered, of which she had given him the address. A lilac bush waved wanly at the side of the step and he had a premonition as he lifted the knocker that she might be dead.

"Miss Cornelia Morrow?" he asked the thoroughly modern and rather hard-faced young woman who opened the door.

"Yes," she nodded.

"Is she at home?"

"Yes, but—"

He held out his card. "Please give her this and tell her that it is an old friend from Florence."

"She won't recall," replied the young woman. "It would be no use your seeing her. She had a stroke three years ago, doesn't even realize she ever traveled. She's lost her memory!"

BETTER JOBS AND MORE OF THEM

The Government's Part in Preventing Unemployment

WILLIAM TRUFANT FOSTER AND WADDILL CATCHINGS

AT THE Conference of Governors in New Orleans last November, Mr. Hoover requested the co-operation of all the States with the Federal Government, in using public expenditures, as far as practicable, for the purpose of sustaining business and preventing unemployment. This plan involves, among other things, increased employment of men on public works in proportion to decreased employment on private enterprises. Since the Conference of Governors, the President has expressed his intention of making this policy a major concern of his administration.

How can this Policy be made effective? Without assuming authority to answer that question for any one else, we here outline our own views.

Any such program requires, first of all, long-range planning of public works. Decisions concerning the projects which are to be started in time of special need, must be reached well in advance of a decline of business. Also, as far as feasible, blueprints, specifications and contracts must be ready. Other advance arrangements must be made so that, in the construction of the postponed public work, public credit can be used promptly whenever the need arises.

In order to determine when the need does arise, the Government must have better measurements of economic trends. Most important of these for the purpose are index numbers of unemployment, consumer income and retail prices. An index number enables us to sum up miles of statistics in a single figure. When, for example, we arbitrarily represent the average of commodity prices in 1926 by the index number 100, and we find that the index number last week was 97, we know that prices are three per cent below the 1926 level. Thus, by means of two simple figures, we compare millions of prices paid at one time with millions of prices paid at another time.

These three requisites—construction plans, public credit and economic indexes—will enable Federal, State and local governments not only to increase public expenditures promptly when private business lags, but also to decrease expenditures promptly when private business forges ahead too rapidly. And business does expand too rapidly whenever, as in 1917-1919, it drives up commodity prices and thereby increases speculation in commodities. By regulating that part of the total flow of money for which they are responsible, governments may help to

prevent such inflation and the deflation which inevitably follows. Thus they may help to sustain trade and employment.

So much for what the Policy actually involves.

What the Policy does *not* involve should be mentioned as well, since the most widely published discussions of this subject have been in error. The Policy does not involve the spending of a single dollar merely to create jobs; or the spending of any more money, during a so-called cycle of business, than otherwise would be spent. Nor is it proposed that any authority shall take the place of the present authority, in deciding what work shall be done. Nor is the Federal Government to exercise any further control over State and local governments. Another advantage of the plan is that it does not require the accumulation of reserve funds, piled up somewhere as a temptation to cheerful spenders. In short, nothing more is involved, as far as public works are concerned, than that a part of such works as are to be constructed, shall be constructed, through the increased use of public credit, when measurements, and not opinions, show that business is in special need of the stimulus of added pay-rolls.



Thus, under this plan, the flexible parts of Federal, State and local budgets are spent with due reference to known changes in trade and in employment. The time for such expenditures is determined by measurements rather than by politics. Fact is substituted for opinion, science for guesswork, public need for political expediency. That is the gist of the matter.

The primary purpose of the plan is to *prevent* unemployment. Increased expenditures are to be made as soon as statistics of prices, earnings and unemployment show the *beginnings* of a business slump. The spending of additional funds on public works *after* business has fallen into a depression has been suggested many times. Yet under this makeshift proposal little has ever been done. The main reason why so much discussion has resulted in so little action, is that the only far-reaching policy is one of prevention rather than one of cure; but prevention is impossible without dependable, timely measurements of economic changes; and only recently have such measurements been possible.

Not until this generation, have index numbers become sufficiently precise instruments for the purpose at hand. Now, they are constructed so accurately that the instrumental error does not exceed one part in eight hundred. That amounts to one cent in the price of an eight dollar hat, or one pound in the weight of a horse. For our purpose, a negligible error. This achievement puts the whole world in debt to such statisticians as Day, Douglas, Fisher, Jordan, Mitchell, Persons, Sloan, Snyder, Stamp, Stewart and Young. More and more widely, their index numbers of prices, profits, wages, income, employment and production have taken the place of guesses and opinions. A generation ago, most people did not know but that Index Numbers was a new game of chance. To-day index numbers appear daily in thousands of newspapers.

But even now, not all the necessary information is at hand. Espe-

cially serious is the lack of statistics on unemployment. It seems incredible, but it is a fact, that in January of last year, when job-hunters increased rapidly, the United States Department of Labor declared that it had "no information whatever as to the numbers unemployed at this time or at any other time." Later on, it is true, the Secretary of Labor made a long report on this subject, in answer to the request of the Senate for information; but that report added nothing of consequence to the previous statement of complete ignorance.

Yet unemployment, as Mr. Hoover has repeatedly insisted, can be dealt with intelligently only on the basis of adequate data concerning the nature and extent of unemployment. "To my mind," says the President, "there is no economic failure so terrible in its import as that of a country possessing a surplus of every necessity of life, with numbers willing and anxious to work, deprived of those necessities. It simply cannot be, if our moral and economic system is to survive." And, again, "For our attack on the problem, we must have this fundamental information about those who are unemployed." Such information can be obtained only through a Federal agency—through such a national employment service, for example, as that provided in the bill (S. 4157) recently introduced by Senator Wagner of New York.

In any event, the Government will take one important step ahead next year. For the first time, the Census will include statistics of unemployment.

Each State, however, without waiting for a Federal system of employment exchanges, can make some

progress. And at least ten States are on the way. Massachusetts intends to pass a bill, introduced by Representative Henry L. Shattuck, under which the Commonwealth will improve its already excellent monthly indexes of employment, wages and cost of living, and will also develop, it is hoped, indexes of unemployment. In addition, the Commonwealth has laid out a five-year building program, and for the first time has made provision for the purchase of outstanding bonds in advance of maturity. This is, in effect, a practical way of building up reserves in good times, to be used for increased capital expenditures in hard times. Both statistically and financially, therefore, the Commonwealth will be in a better position to do its part, when the Federal Government acts upon the President's recommendations. For the same purpose, Senator Slater has presented three bills to the Legislature of the State of New York.

Massachusetts furnishes another example of practical ways of acting on President Hoover's suggestion. Formerly, appropriations for public works did not become available until after the seasonal unemployment of the winter months. Now, the Department of Public Works may begin in December, with the approval of the Governor and Council, to spend a large amount of money on State highways, in anticipation of appropriations to be made the following spring.



Some time ago, we suggested that the responsibility for carrying out the proposed Policy, as far as the Federal Government is concerned, be

placed upon a Federal Budget Board, created for the purpose. Such a Board is provided for in Senator Wagner's bill (S. 4307), which sets up a Federal Unemployment Stabilization Board, composed of the Secretary of the Treasury, the Secretary of Commerce, the Secretary of Agriculture and the Secretary of Labor. It is the duty of the Board "to advise the President, from time to time, of the trend of employment and business activity, and of the existence or approach of periods of business depression and unemployment." Better still would be a board made up of men not already overwhelmed with other duties, and appointed by the President for seven-year terms, so that a majority of the members would survive the coming of a new administration.

But is it possible to speed up enough public construction at certain times, and to postpone enough at other times. Is there sufficient flexibility to render the plan practicable? Certainly there is, for there is always a large difference between the capital outlay which is requested by heads of departments, and the capital outlay for which appropriations are actually made. In Massachusetts, for example, during the past three years, the capital outlay regarded by department executives as necessary for the efficient conduct of their departments, has averaged three million dollars more than the amount appropriated. Last year requests were filed for eleven million dollars. Of these, only eight and a half million were recommended by the Governor. Obviously, the Commonwealth could have made a capital outlay of eight million dollars,

regardless of business conditions, and an additional outlay of one million if business indexes showed special need.

Such a plan, we are told, makes a pretty theory, but it is not practicable. When the Government needs a new post-office at Boston, it needs a new post-office at Boston. It cannot put off construction merely because business happens to be headed for a boom. When Oregon needs a new highway, it needs a new highway, no matter what the index numbers show. Likewise, the Mississippi Valley needs flood prevention; needs it now. Floods do not wait the advice of statisticians.

There is something to this objection, of course; but not much. Actually, the amount of money that is spent in any given year on post-offices and highways and flood prevention is not determined mainly by the degree of need. If a thousand miles of roads are built this year in Ohio, it is not because those roads are particularly needed this year. They were needed last year. And why only a thousand miles? Almost as urgent a need could be shown for two thousand miles. Not merely need, but a hundred other considerations now determine the capital outlay by Federal, State and local governments. Surely, it is wise to give weight to one more consideration: that is, the effect of such expenditures on real wages and employment, and consequently on the happiness of millions of people, especially those in greatest need.

Thus it is plain that even under present conditions, there is enough flexibility to make the plan feasible. There would be still greater flexibility if the need of it were consid-

ered in the making of budgets. To say that budgets as they have been made in the past do not allow sufficient leeway, is to beg the question.



But how, it is asked, can a horde of laborers suddenly be moved from New England mill-towns to Nevada deserts? That is another objection which becomes less impressive the more one examines it. For when, under the proposed Policy, a business depression was threatening, Government expenditures would be increased not merely in Nevada, but throughout the country. That is one reason why President Hoover asks the help of all the States in carrying out the Policy. In point of fact, the actual distribution of public construction throughout the United States, during the last ten years, indicates little need for geographical mobility of labor.

Even so, how can such construction give jobs to all the workers who are jobless? Most of these idle men and women cannot lay bricks, pour cement or even dig ditches. That is true. But it is also true that increased expenditures for public works add to the demand for cement, steel, lumber, iron and hundreds of other commodities—shovels, trucks, cement-mixers, office supplies, architect's plans and all the rest. For this reason, not all the money that is spent on a local job goes into local pay envelopes. Much of the money goes to increase wages in numerous industries throughout the country.

Of still wider import is the fact that nearly all these wages are promptly spent for oranges, hats, radios, newspapers, movie tickets and countless other things that make

up a typical family budget. Everybody in Akron understands that. When employment in the tire factories increases thirty per cent, the whole city cheers up. For everybody knows that Goodyear and Firestone pay-rolls are spent only in small part for tires; mainly for thousands of other things. That is why it is impossible to add many men to the pay-rolls of any industry without helping to sustain employment in virtually every other industry. For example, there is no way of spending three million dollars on the proposed post-office building in Boston, without to some extent increasing the demand for supplies, and consequently the demand for labor, in a hundred other cities.

Moreover, if the men who want to work on highways, harbors, parks, buildings and dams find employment in these vocations, they are not crowding their way into other, already overcrowded vocations. That is another indirect help to all classes of workers.



Some people object to this Policy for fear that tax receipts will be wasted in carrying out emergency projects. That is precisely what the Policy aims to avoid. As a matter of fact such waste is precisely what happens now whenever, in the depths of a business depression, we hastily hand out jobs without having planned the work well in advance. To cite a single case, one city employed a squad of men in 1921 to carry stones across a field, and the next day employed another squad to carry the stones back.

In the same year, no fewer than 175,000 unemployed men and women

by actual count, asked aid of the city of Detroit. Thereupon the City Council, at the request of Senator Couzens, then Mayor of Detroit, appropriated a million dollars for relief. The money was turned over to the Superintendent of the Poor, who was instructed to give every applicant some kind of a job. That was better than handing out doles. It would have been better still, if the emergency work had been carefully laid out in advance.

The question arises whether the amount of money spent on public works is large enough to go far toward preventing unemployment. As a partial answer, consider expenditures for the year 1925. In that year, public construction contracts were let to the value of about 1283 million dollars, and wages paid to factory employees amounted to about 10,409 million dollars. The amount spent on public works was larger than the decline of factory wages in any year since 1921. It follows that if all public construction since 1921 had been distributed for the purpose of sustaining employment, the wages thus paid would have accomplished the purpose. Moreover, as we have explained, the indirect effect on employment of expenditures for public works is such that there is reason to believe that even one third of public construction, rightly allocated, might prevent slumps in employment.

The proposed Policy, obviously, is not a complete solution of the problem of unemployment. The causes of business depressions are many; and all these, and others, are the causes of unemployment. As long as producers are free to take

risks, and consumers are free to buy what they please—indeed as long as business is free to use new inventions—no single measure will guarantee work at all times for all those who want work.

No matter how prosperous business may be in general, some industry is certain to have troubles of its own. It may be the textile industry to-day; it will be some other, to-morrow. Again, no matter what is done to sustain prices and trade as a whole, there will be times when farmers will not get their share of prosperity. The least that can be said, however, is that everybody is better off in a time of general prosperity than in a time of general depression. Even the workers in cotton-mills and shoe-factories, to say nothing of farmers, are better off now than they were in the "hard times" of 1921. Indirectly, taking up the slack of employment helps everybody, everywhere.

The greater part of the slack we can take up at any time by lifting consumer-buying as a whole to a level with the output of consumer goods as a whole. For consumption regulates production. Adequate consumption, therefore, does more than anything else to sustain employment. And nothing more is needed to achieve the right rate of consumption than the right flow of money to consumers.

Now the largest part of this flow, and the part that is most promptly spent, is the stream of wages. Nothing, therefore, can go so far toward sustaining trade and employment as increasing the weekly pay-roll of the country fast enough, and not too fast. The right rate of

increase, obviously, is the rate at which increases are brought about in commodities and services. Such an increase of pay-rolls will be fairly well maintained by business men as long as they *think* that business is going to be good; for in that state of mind, they will increase their own capital expenditures rapidly enough to *make* business good.

This brings us to a point of major importance. Those who have given most study to the proposed plan do not expect that the chief source of increased consumer income will be increased public expenditures. It is expected that private concerns, notably railroads and public utilities, encouraged by the assurance that governments will act if necessary, will so act in their own interests as to make large increases in government expenditures unnecessary.



Why, then, do we not leave the whole problem in private hands? The best thing the Government can do, we are told, is to keep out of business. But that is impossible. The Federal Government is the largest business in the world; the largest consumer; the largest spender. As such, it inevitably affects prices, markets and public confidence.

So the question is, not whether the Government through its expenditures and other fiscal policies shall influence trade and employment, but how it shall exert its influence most intelligently. Government expenditures are at all times additions to private expenditures. There are times, as everybody knows, when private expenditures are too large; other times when they are too small. The Government can regulate a

considerable part of its own expenditures accordingly, thus tending to maintain the balance of supply and demand in the markets; and this without exercising any control whatever over private spending.

But the Federal Government now spends its four billion dollars a year with scarcely any consideration of the effect of these expenditures upon trade and employment at any given time. Even when it becomes alarmingly clear that business is indulging in a boom, the Government does not slacken its competition with private concerns for labor and materials. So, also, when a business depression sets in, the Government goes ahead without enlarging its prearranged program. Thus, reflecting the mental attitudes of business men, the Government is usually flush with expenditures in boom periods and overcautious in depressed periods. It ignores the fact that the very act which, under certain conditions, helps business generally and tends to prevent unemployment, is under other conditions equally harmful. All this is true of State and local governments as well; and at present they spend nearly twice as much money as the Federal Government.

We come finally to a matter of paramount importance. The agency which has the chief responsibility for carrying out the proposed policy will need the coöperation of other branches of the Government; for all the fiscal operations of the Government have some effect upon the flow of money to consumers, and consequently upon trade and employment. Especially necessary will be the coöperation of the Federal Reserve Board. If, for instance, the Reserve Board, acting

upon opinions instead of facts, arbitrarily forces up interest rates when commodity prices and employment are falling off, thereby discouraging construction activities, private and public, and decreasing pay-rolls throughout the country, the Reserve Board may more than offset all the efforts of other agencies to sustain the demand for goods and labor.

All branches of government, Fed-

eral, State and local, in all activities which affect the flow of money, should take into account existing business conditions and trends, especially prices and employment, as revealed by adequate, timely measurements. That, as we understand it, is the core of the Policy approved by President Hoover for providing better jobs and more of them.

BAPTIST

ELIZABETH ATKINS

His father is a Fundamentalist,
And holding him in reverence, John must see
All of the world suffused in magic mist
Of a blue distance where he may not be.
His eyes are those of one who lies and stares
Through bars into the sky-depths all night long
Till the stars seem to call him, and he wears
His heart out that his prison is so strong.

Away from home, he soon enough will win
Escape and see, instead of the eternal
Renunciation and reward supernal
And Luciferian magnitude of sin,
A feeble friction and a puny lust,
The agitation of a little dust.

YOUR CHILD AND MINE

What to Teach the School-Board

JOSEPHINE DASKAM BACON

WE HAVE grown into such a nation of specialists in this country that I sometimes think it wouldn't be a bad thing for us to go back a little to our old Yankee days, when everybody *knew* a little of everything and *did* a little of everything. There were not of course so many "investigations by experts" in those days, but perhaps, on the other hand, there were not so many things which required investigation!

One of the matters lying nearest and dearest to the hearts of all parents is the education of their children. This has grown into a very complicated, highly professional affair, almost entirely under the direction of a vastly powerful body, often very suitably entitled "Regents." From their mighty mouths issue endless and sometimes incomprehensible mandates, changing every year, adding always to the stream of knowledge that must be gulped down by our helpless children (who are no thirstier, alas, than they ever were!), but never subtracting anything from the dose.

When these same Regents, who are human beings, I assume, were little children (if such abstract beings ever condescended to anything as concrete as childhood) they must

have felt, as all children feel, that their time was pretty well taken up. And so they must realize, one would suppose, that since even a Regent cannot very well add to the length of the old fashioned twenty-four hours that still make a day, *something* must be crowded out, nowadays!

Now there are some of us who, while we don't feel qualified to inform the powers that be as to just what our children *shall* be taught, have a suspicion that we know of a few things they really *don't need* to be taught. Each of us has doubtless different ideas: I am only mentioning mine as a start-off. If all the members of the leading woman's club of a town should draw up such a list, or if some of the "community meetings" should take up the subject for an evening, I am interested in knowing whether the result of their criticisms would reach the school-board and whether it would make any difference.

What is a school-board, anyway? It is composed of men and women very much like us, isn't it? If it isn't, it certainly ought to be. For whom are these minute schedules of occupation composed—abstract averages, or children like yours and mine? And if we don't always like the effect of the dose on the little

patient, if we think that almost too many cures are being practised at once for the simple old epidemic of ignorance, why don't we say so?

For many of us are discontented, now and then. Most mothers and fathers have their pet grievances against the schools, public and private, and often discuss them. I am always interested to observe that there is a strong tinge of fatalism in all these discussions: we speak of the schools as if they were in the same class as the weather, not to be predicted or counted upon or changed—only to be endured!



I am going to be bold enough to state very frankly my objections to some of the new methods and tendencies in modern education and to explain why I object to them. It is not in the least because I am conservative or because I dislike changes, as such, that I am a little impatient of these tendencies. It is simply because I honestly believe that in spite of this famous "age of the child" in which we live, there are some aspects of child nature quite overlooked by our modern psychological experts, which were quite clear to our ancestors!

For instance, while I am far from believing in the unqualified old maxim that "children should be seen and not heard," there are a great many subjects in regard to which I do not consider children's opinions to have any value or interest. More than this, I regard their study and discussion of them as a distinct waste of time. One of these subjects is what is called to-day "Current Events." It has become a great fad with our school-teachers to insist on

the study and discussion of the principal political, economic and international questions of the day by children from ten to sixteen, and this is meekly accepted by everybody as a great sign of educational progress.

Now, I don't accept it as such at all. I question its advisability. I admit frankly that the opinions of my eleven year old son as to the boundaries of Czechoslovakia, the relations between Labor and Capital, and the outlook for national and municipal elections had no interest whatever for me! It really didn't matter to me what he thought about these things, because opinions on them must fall into two categories: you must treat them as news items or interesting principles. As news items they can have no possible value for a child, and his judgment is not sufficiently formed to enable him to treat them as underlying principles. Intelligent breakfast-table discussion of the equitable apportionment of the world's war expenses with any youngsters in whom I am interested would bore me to death, I am frank to say. Recent events have to be reduced to some sort of perspective before even trained, mature minds can judge of them: in a child's mind they must form a hotchpotch of disconnected and doubtfully verifiable facts.

The only suitable sources for the child's growing culture are what they always were: literature, especially history; all the arts, with every possible chance to interpret them; natural science on its broadest lines. If education has any value in itself (as distinct from teaching children trades by which to earn their living) this value must be based on knowing what has happened in this world

from the beginning of it. All this has been written down for thousands of years, and we call it history and literature. Surely those of us who know about it and thrill to the great story of it will have a more balanced judgment, in the end, than those of us who know, for instance, no war but the one too recent to understand either its causes or results.

It is a very useful accomplishment to be able to repair an automobile. But in really educative value I cannot believe it is so enlarging to the mind as to stand in front of an actual Etruscan war-chariot, still fresh and bright with color, as a child may do in the great New York art museum, and realize that men with brains and hearts and hands like his own, rode in it before Rome was born.

This is why I regret our young people's growing lack of interest in the great events of history and the great characters of literature. Curiously enough there has never, probably, been such an interesting series of popular treatments of these great characters as there is to-day. Educators are picking out the bright spots and high lights of history and giving the gist of them, in clever stories, as never before. But they seem to make less impression on the children. Perhaps they stayed in the mind better when the little readers picked them out, themselves, from among the dull pages! Perhaps because there was none of the idiotic mush called "juvenile literature," they grew strong on the bread and meat and wine of the old prose and poetry that had stood the only test in the world—the test of time.

Another tendency of some of our new private schools, especially,

makes me a little doubtful as to its final results, if it is taken too seriously and carried too far. This is the smattering of arts and crafts and trades and business training and amateur government among which our children move their perplexed way.

I am far from being a reactionary and I realize perfectly that children have for many hundreds of years sat cramped at stiff desks, recited standard tasks in a parrot-like way, exercised their memories too much and their fingers too little. "Spare the rod and spoil the child" is undoubtedly a maxim that has, and very properly, outworn its usefulness. Our fathers were so convinced that the child was only an adult in embryo, so to speak, that they thought too much of his future and too little of his present.

But it seems to me that we are carrying the reaction too far. After reading some of the recent authorities on child training, one would suppose that children were an entirely different species—that they would always be little, like mice. Now this is clearly not so: children and grown people are not like mice and rats—they are like kittens and cats!

And I confess that I am a firm believer in teaching children to wash their faces, for instance, as a cat instructs her kittens. First she does it for them; then she shows them how; then she sees that they do it! It seems to me that many of our modern educators would honestly prefer to call a parliament of children, lead them through a series of scientific experiments to a discovery of the cleansing effects of soap and the unhygienic effects of accumulated dirt

upon the face, and finally induce them to vote upon the advisability of regular bathing!

For myself, even if the parliament should vote unanimously for this, it wouldn't prove anything to me. A sufficiently clever adult can always get a child to do anything. It would be very strange if this were not so. The main thing is for young people to establish mechanical habits of personal cleanliness early in life. I cannot for the life of me see that it is of any importance what they think about the advisability of this. They must be kept, too, from jumping out of second-story windows and lighting fires on the carpet. These things don't admit of discussion, and as soon as they are old enough, they will understand this perfectly. If it is a question as to whether we shall have sponge or molasses cake, or play baseball or swim, or read *Blue Beard* or *Cinderella*—why, by all means, vote on it! But as for voting about face-washing, no. A vote is either a jolly way of counting noses or it is a powerful and serious thing. And it is easy to prove that in the case of children, it never can be serious.

Suppose that an adult, carried away with this idea of juvenile self-government, but unfortunately not gifted with the ability to sway the children in the direction he desires (which is a gift invariably possessed by all successful educators) should put the matter of face-washing in his school to vote. Suppose that by some unheard of chance the children, after carefully considering the scientific and historical evidence in favor of face-washing should vote, nevertheless, against it. This is a perfectly possible situation and could be met,

of course, only in one way: they would have to wash their faces whether they voted for it or not. The whole thing would be proved a farce.

This is why I am opposed to "children's school-courts." When I read enthusiastic accounts of "real little courts, just like the grown up ones," where a child judge, assisted by a child sheriff, gives the case of a child criminal to a child jury, I experience a shudder of active distaste. I honestly don't think this the province of childhood. I don't see why there should be child jurors any more than child dentists. The judicial faculty is one of the privileges and the responsibilities of maturity. I would rather have my children in schools where the school heads are competent to make wise, fair rules and see that the children obey them. If they can't do this, they shouldn't keep schools. They can do this, and there have always been many good and successful examples of it. All of these wise heads keep in close touch with their older, trustier pupils, depend to a certain extent on their judgment and give them varying amounts of responsibility, which, of course, is the only reasonable thing to do. But this is not the principle of a House of Representatives or a jury-room. It is an extension of the family and the family is not a political unit.



For much the same reason, instead of exclaiming with wonder at the school that has its own printing-press, sets its own type and publishes its own newspaper, I question the necessity or advisability of this. Why is it necessary, really? Type-setting is a merely mechanical pro-

cess: any young person can be taught it—either in school or after leaving it. The only object of printing is to spread ideas. Few people have the editorial mind: it rarely develops early.

I am just obstinate enough to contend that I should much rather have my children fill their plastic minds with other people's great thoughts for a few years than to publish their own. If they have any exceptionally original ideas, they will appear, quite certainly. I'm not afraid of that. And the cleverer they are, the more carefully these early ideas will follow the best models. So I should like them to accumulate as many good models as possible.

One interesting fact about these school papers is that I have never seen a good one. They are either frankly managed and censored by the masters (which is amusingly evident) or they instantly exhibit a cheap, smart Alec quality, imitating the least desirable side of modern jour-

nalism. They really aren't serious at all: only the masters are fooled by them. The children are self-conscious, perfectly aware that they don't know enough, and copy the easiest model—vulgarity. Any one who has read a modern High School magazine knows what I mean.

The college periodical is a very different matter, because young men and women in their twenties are very different from boys and girls of sixteen.

My whole criticism, you see, condenses into this: though a thing is good at forty, it may be doubtful at twenty and positively ridiculous at ten. All the experiences of life need not be adapted to every age. There is a time to listen and a time to speak; a time to learn and a time to act. And our forefathers, I am sure, were not utterly ignorant of psychology when they insisted that to listen and learn was one of the chief duties of children.

THE RETURN OF MAHATMA GANDHI

And the Renaissance of India

JOHN HAYNES HOLMES

THE RETURN of Gandhi to public life in India, his renewal of the policy of burning foreign cloth, his arrest and conviction, and, above all, his promise made at the All-India National Congress in Calcutta last December to lead his people in a new non-violent campaign if the British Government does not accept the national demand for *Swaraj* before the end of this present year—all this marks a turn in Indian affairs of the first importance. A new crisis is at hand, dominated by the most potent personality in the world. For Mahatma Gandhi is more powerful to-day than he was even in the terrific days of 1919-1922, and the new character of his influence has a significance unparalleled in our time. In the light of what has happened since Gandhi's semi-retirement five years ago, and especially of what is now impending in India, the world needs to get acquainted with this amazing man all over again.



Gandhi must be understood, first of all, as the immediate successor to Leo Tolstoy in that unbroken line of saints and seers, running like the stitches of a golden thread through the tangled pattern of human affairs, who have insisted that man, like God, is spirit, and can achieve

his ends and thus fulfil his life only by using the spiritual powers of his nature. Gandhi, in other words, like Tolstoy, Garrison, Fox, St. Francis, Jesus, Isaiah, is a "non-resistant."

This is an awkward and inaccurate word, since it expresses only that negative quality of refusing to meet evil with evil, violence with violence, injury with retaliation in kind, which the average man finds it so difficult to differentiate from inertia and cowardice. "Non-resistance," as a descriptive term, neglects altogether that superbly positive, even aggressive quality which Gandhi has defined so nobly in his famous phrase, "soul-force," and which Jesus has exalted in his immortal injunction—"Love your enemies, bless them that curse you, do good to them that hate you." The non-resistant should be known as one who would lift man altogether above the plane of brute physical existence, where he had his origin, to that loftier plane of reason and the spirit, where he has his proper destiny. He would have humanity begin now to live that life of intelligence, constructive good-will, creative love and self-sacrificing service, which distinguishes the human from the animal. Such life is the one thing which can bring God's kingdom upon earth, to displace these innu-

merable kingdoms of the rod and sword which have cursed man in every age, and now threaten to destroy him altogether. The phrase, "non-resistance," expresses not at all these ultimate and positive implications of the repudiation of physical force. But it is the one generally accepted phrase we have to describe the group of men whom I have named, and the phrase, therefore, that we must use to give Gandhi his proper classification.

But Gandhi is not merely one among many non-resistants. On the contrary, he is unique among them all for a use of his essential genius on a scale and with a power never achieved or even attempted before. The non-resistant way of life has always had its pure and heroic individual exemplars. It has been adopted and practised by small groups, like the Dukhobors, as a basis of community existence apart from the encompassing society of men. It has been lifted high by certain organized religious bodies, like the Moravians and the Quakers, as a guiding light amid the confusion of a world where "ignorant armies clash by night." But never till Gandhi came along was it deliberately adopted and used by a whole people as a program of statesmanship to the great end of political and social liberation.

Gandhi's great campaign in South Africa (1894-1914) must stand forever, I believe, not only as the first but also as the classic example of the use of non-resistance by organized masses of men for the redress of grievances. Here was a situation which was as old, and as new, as human history itself—the repression of a despised minority of men by an

arrogant, cruel and all-powerful majority. Certain thousands of Gandhi's fellow-countrymen, brought to South Africa to do the menial labor of the land, were outlawed from justice, tortured by discriminative legislation, despised and spat upon by a so-called superior race, and thus visited with misery and threatened with death. In such a situation the downtrodden in other ages have either abjectly endured and died, or else have risen in mad revolt, and perished or escaped amid the horrors of struggle and slaughter. Gandhi, determined that his fellow-countrymen should not bow "like dumb, driven cattle" beneath the yoke of oppression, was equally determined that they should not plunge themselves and their oppressors into the agonies of violence and death. Out of the mystery of his own devoted and highly disciplined spirit, he found a better way. With a skill, patience, and heroism well-nigh unexampled, he took these thousands of ignorant, untrained "coolies," sore oppressed in an alien land, and, by sheer power of personal example, welded them into a single body and instigated a non-resistant revolt which brought them, after years of struggle, the freedom they sought. Gandhi's first move was to teach his followers to have no part in the life of a society which denied them the elementary rights of men (*non-coöperation*). His next move was to discipline his followers to do no violence upon their oppressors—to suffer injury themselves, but to return no injury to others (*non-violence*). And his last move was to lead his followers to the heroic achievement of serving their oppressors—helping them, coming to

their relief and rescue, whenever they fell in need (*soul-force*). Thus, when a native rebellion broke out, Gandhi and his Hindus suspended their opposition campaign, and gave aid and comfort to their enemies. When the plague seized Johannesburg, they nursed the sick and buried the dead among their persecutors. When war engulfed the country, they marched to the battlefields of Englishmen, to serve and save the wounded. For the first time in history, a great fight for freedom was conducted on the principle of "be not overcome of evil, but overcome evil with good." And the moral law, regnant in the universe and in the hearts of men, justified itself, as it always will in the long run, by bringing to Gandhi and his followers the meed of victory. Henceforward, when men doubt the efficacy of non-resistance, they have their answer in South Africa.



What the Mahatma attempted and achieved in South Africa, great as it was as compared with all previous undertakings of the kind, shrinks into insignificance in the light of his vast non-violent non-coöperative campaign against the British Empire in India in 1919-1922. Here Gandhi became the leader of a great people, numbering hundreds of millions of men and women, in an uprising for national independence. He took his place at this hour with Bruce, Washington, Garibaldi, Sun Yat-sen, as one of the supreme patriots of human liberty. But he stands apart from and above these men, also, as one who refused to draw the sword as the necessary weapon of liberation. Alone among national leaders striving for the free-

dom of their people, he sought a spiritual weapon; and in this search, worked out a peaceful program of revolt which stands as a supreme achievement of world statesmanship. In this program of "non-coöperation," as it was called, Gandhi showed himself one of the wisest as well as bravest of men. In his success in disciplining a vast population to its performance, he looms as the most potent personal force the world has known. In one year he demonstrated the efficacy of a non-violent campaign to win liberty against odds that no sword could ever overcome. If, at the critical moment, he failed to reach his goal, it was because, in the intensity of the conflict and in the momentousness of the issue, Gandhi forgot, or ignored, what he had himself taught in South Africa, that the non-resistant method must have time to achieve its end. The sword may win or lose everything in one heroic moment. The soul must have years, perhaps decades, to make its slow but perfect way. This principle that non-resistance can win only when trusted and tried "in the long run," established for all time by the twenty years of patient conflict in South Africa, Gandhi himself violated in 1921, just as Jesus violated it in his time, by promising that victory would be immediate. This inevitably rushed both expectation and effort on the part of the Indian people, and resulted in the collapse of the great movement from its own inward momentum. Gandhi, in other words, put suddenly on the masses a greater spiritual strain than they were prepared all at once, even under his leadership, to bear. But in India, as in South

Africa, the principle was proved. Gandhi, no more than Jesus, is discredited by a failure that shall yet be retrieved by the law which he himself discovered and proclaimed.



It is Gandhi's greatest glory, and the surest evidence of his spiritual stature, that he himself saw the reason of his failure, and was the first to undertake the stupendous labor of its correction. Understanding came to him in the silent hours of his imprisonment at Yeravda, after his arrest on March 10, 1922, and in the long, quiet hours of his convalescence after his release. He had achieved a miracle with the people of India. He had done what had never been done, and what had been said could not be done—namely, united the whole nation in one great and sustained mass movement against the *Raj*: a movement so nearly successful that it shook the British Empire to its foundations. "Gandhi's was the most colossal experiment in world history," said Sir George Lloyd, the English Governor of Bombay, "and it came within an inch of succeeding." But the strain was too great; and under it the people broke. Now the work must be begun all over again. What had been done in South Africa on a small scale, he must now do in India on a large scale. He must train the Indian people for their great task of independence. He must make them inwardly worthy of what they desired, and thus spiritually capable of winning and holding it. He must cleanse India of its social abominations; end forever the political, racial and religious hatreds which divide the nation and make it impotent; discipline the masses every-

where to self-dependence, outwardly in their political and economic, inwardly in their intellectual and spiritual, life. He must teach them, in other words, the law of love, and, by making them obedient to this law, fit them to be at last the masters of their destiny.

It was when Gandhi, after his long convalescence, undertook this gigantic labor of the spiritual regeneration of a whole people, that he entered upon the greatest period of his career. He abandoned, now, the political field to other and lesser men. His was no longer the task of organizing political parties, and presiding at political congresses, and leading nationalistic political campaigns. This work might well go on—indeed, must go on! But always there was the deeper and higher task of reaching the souls of the people, and this henceforward was *his* task. Promptly he defined certain tests, or standards, of spiritual discipline which must be met as a condition of the attainment of *Swaraj*. Moslems and Hindus must end their age-old hate, and live together as brethren in a common cause. The Untouchables must be delivered from the outer darkness of prejudice into which they had been cast, and thus restored in love and sympathy to the common life of India. The weaving and wearing of native cloth must become everywhere the national custom, and thus the token at once of outward and inward freedom. Above all, must every man eschew violence, banish hate and fear from out his heart, and seek deliverance from the national enemy (Britain) by transforming this enemy, through the alchemy of love, into a friend. Long since had Gandhi

begun this work in his own personal life. He had organized it on a small, modest scale at his school (Ashram) and fraternal community at Ahmedabad. Now he sent forth the challenge throughout the length and breadth of all the land, and set himself patiently but resolutely to the task of its fulfilment.

Suddenly and sublimely Gandhi became what he had been in essence from the beginning—a religious leader. In South Africa, he had appeared as the skilful and successful organizer of a local social revolt. In India, in 1919-1922, he had loomed high as the patriotic leader of a far-flung nationalistic struggle for independence. In both these instances, however, Gandhi was greater than the rôles which he was playing. His non-resistant program, hitherto unheard of on such a scale and to such ends, was the outward and visible sign of mightier forces inwardly at work. From the beginning, in other words, in his most practical endeavors for reform, Gandhi had been concerned not merely with political and social aims, but with moral and spiritual ideals. More truly than he himself realized for a time, he was moving, under the impulse of his essential nature, on the religious plane. And now, in an instant, as it were, he became deliberately in action what he had always instinctively been in motive and idea—a seer and prophet of the soul! No longer was he to be numbered merely with political reformers and nationalistic leaders. Henceforth he was to be reckoned with the supreme religious geniuses of history—those half-dozen timeless spirits who have changed the world by their high

visions of love and brotherhood for men. What we have on this earth to-day, in the person of Gandhi, is the latest in the august succession of Lao-tsze, Confucius, Buddha, Zoroaster, Isaiah, Jesus. The comparison with Jesus is inevitable, and not merely from the standpoint of the non-resistant ideal which binds the two in perpetual fellowship. Long before the war, the Mahatma was compared with the Christ for the sheer beauty and sanctity of his inner life. Now this comparison is immeasurably clarified and strengthened by the spectacle of what Gandhi is seeking to do for India and for the world. If we would know to-day what Jesus was as a saint, and also what he did, or tried to do, as a savior, we have only to look across the seas to Mahatma Gandhi.



The shift and lift of Gandhi's career from politics to religion, inevitable in a man so spiritually-minded as he, marks a break, so to speak, which has been almost universally misunderstood. Especially have Englishmen, moved by the wish implicit in the thought, united in declaring that this change is not so much a break as a final end to the Mahatma's activities as a leader of his people. Has he not retired from public life? Are not other and lesser men taking the leadership in agitation which once was his? The courage of the British administration in India, in arresting and imprisoning Gandhi for sedition, achieved the decisive result of scattering his followers and shattering his power. The Mahatma's refusal, after his release and recovery, to resume actively his political leadership was his confes-

sion of failure and defeat. Gandhi's influence is gone. He no longer leads because there is none to follow. What was for a few months, according to official sources in India, the greatest single menace ever faced by the British Empire, has now dwindled to the insignificant proportions of a saintly little man surrounded by a few fanatical reformers in an obscure corner of the land.

So Britain argues! And so Rome must have argued, if she argued at all, after Jesus was crucified on Calvary! As a matter of fact, as we now know, Jesus's work only began with that dread hour of his arrest and death. So Gandhi's work only began with his voluntary abandonment of political agitation for religious teaching and example. In his great days of political leadership, Gandhi was beyond all compare the most potent single influence ever known. One may search the pages of history in vain to find any man in any age—religious teacher, military conqueror, political statesman—who has held at one time so vast a power over so many millions of human beings. Throughout all India, Gandhi was supreme. The great bowed before his sanctity; the learned revered his wisdom; the myriad common people hailed his sacrifice and love. In a far-flung population, speaking different languages, acknowledging different traditions, worshiping different gods, and the vast majority of them illiterate, Gandhi's name was everywhere known, and his word everywhere obeyed. This personal ascendancy of one man over more than three hundred millions of his fellow-men is a fact unparalleled in the recorded annals of the race. And

this same influence Gandhi wields to-day! It is a different influence, not so immediate in its appeal, not so dramatic in its expression, not so definite and tangible in its character. But it is deeper and more fundamental. Ranging as far over the surface of society, it penetrates to central sources of thought and life. No longer sweeping like a flood that engulfs, it flows like a hidden river which feeds and thus renews the landscape. Gandhi to-day holds not so much the political allegiance as the spiritual awe of his countrymen. He is no longer merely followed as a leader, but worshiped as a saint and prophet. And in this worship of the Mahatma to-day, as in the worship of Christ in the early days of the Christian church, is begun a work which will trouble the Empire and the world till India is free, Asia delivered of her woes, and humanity itself redeemed. The man who sees no power in Gandhi, is the man who knows no power save that of the ballot-box or battlefield. But there is a power greater far than these, since it is not imposed from without but generated from within. Gandhi is mightier at this hour than he has ever been before, because his exalted spirit is entering permanently into the living consciousness of his people, as it is destined eventually to enter into the living consciousness of mankind. Such a power, born of the spirit, is a perpetual and transforming thing. Like the pull of celestial gravitation, it moves the world.

What is going on to-day, through the spirit incarnate in one man, is first, the renaissance of India, the recovery by Indians of their ancient

dignity and freedom, the rebirth of the most august and venerable of civilizations to new and greater life. Then, beyond this, is the renaissance of the world. Gandhi's influence spreads from India to the East, and from the East to the distracted West. For Gandhi is to-day a universal power. No man, to be sure, more Oriental than he! A hundred ideas, native to his very life, must forever be alien to the imagination of other men. But his spirit, like a star, shines down through darkness. Wherever men struggle, they hail his light. His name has become a symbol of dedication, his life a program of salvation. If mankind is saved from the myriad perils which now threaten it, it will be through the leading of that spirit which is in Gandhi.



If we would know the secret of Gandhi, we must "behold the man." In no leader of the race has the power of the spirit ever come to such utter singleness of expression as in this Indian. Nothing else avails to explain the matchless character of his influence. His person is stripped as naked of grace as his body of clothes. His physical presence is completely insignificant. His intellectual capacity, as compared with Tolstoy's, is meager. Unlike Jesus, he commands no magic of words. Unlike Mohammed, he has no consuming passion of temperament and will. Among religious leaders, he comes nearer to St. Francis, perhaps, than to any other; but even here he lacks that lovely esthetic sensibility, that native instinct of poetry and song, which blossoms with such immortal fragrance in the Assisian's "Little Flowers." A frail, puny,

utterly unimportant-looking man is the Mahatma. But in this trivial lantern of the flesh, there burns a light that "never was on land or sea." His deep and lustrous eyes, his lovely smile, his utter clarity of mind, his gentleness and peace and unfailing compassion—these reveal at once the inner glory. The poverty of Gandhi's personality in every other respect serves but to isolate and thus make plain his essential quality of life. Other men can be explained by gifts of birth, or education, or personality, or intellect, or speech. Gandhi knows none of these things. Clothed upon with the frailest garment of fleshly incarnation ever known, the Mahatma walks among us as pure spirit.

It is this fact which makes so formidable the prospect of Gandhi's return to active political leadership. The inherent spiritual power of the man, coupled with his control of the people in matters of fundamental human relationships, makes him a factor of overwhelming importance in the life of India. If they were wise, the English administrators would welcome the Mahatma's leadership, and use it as a constructive influence for peace. For it is Gandhi, and Gandhi alone, "now as always," to quote C. F. Andrews, "the central driving force in Indian political life," who has it within his power to save the existing situation. Failing his intervention by the glad accord of all good men, India will not subside again in meek submission, but flame at last into revolt which will engulf the world. The Mahatma has for India, the Empire and mankind, "the way of life." Will men not recognize it before it is too late!

THE OTHER SIDE OF IT

A Premature Post-Mortem

GILBERT SELDES

IF THERE is no law against it, I would like to suggest that sex-appeal is a fraud and that in the long run the odds favor Rin-tin-tin, representing intelligence, against Clara and Pola and Greta and the rest of the girls representing *it*. To get the worst over at once, I would add that sex-appeal does not and cannot exist to any impressive degree in the movies, that it is a false front designed to conceal the failure of the movies in their real job (which is to supply entertainment) and finally that the possession of *it*, far from being an advantage, has regularly brought ruin to those who tried to exploit it. And now, unless Mr. D. W. Griffith will oblige with one of his old-fashioned, last-minute rescues, I am prepared to face the firing squad at sunrise.

The deep philosophical notion underlying sex-appeal is that a photograph can get hot. Not by what it does, because the censor has cut out all action suggestive of sex, but by what it is—or has. In short that a series of animated pictures can radiate that peculiar and mysterious energy which affects the passions and that the picture of a flapper can drive millions of men slightly mad at any given moment.

I do not want to say anything

against Mme. Elinor Glyn's favorite prescription for happiness in life—only to suggest that the movies are about as good a place to find or to use it as the extreme point of the Arctic Circle. Shortly after Caruso's death, the astute manager of his concert tours was telling me why a certain estimable tenor was failing to take Caruso's place. "Blank's voice," he said, "is essentially monogamous, the voice of a reliable husband; Caruso's voice was essentially polygamous, the voice of a lover." He went on to say that technically and artistically, Caruso was superior; but, he added cynically, most of the women who made Caruso's tours such triumphal processions, were incapable of appreciating these fine points. They appreciated only the special quality of his voice which was like the caress of a lover, the warmth and fragrance of an embrace, the intoxication of *secret* love-making. "The moment a woman heard him she felt he was making love to her alone and she wanted to surrender to him." A few years later he would have summed up the whole thing by saying, "Caruso had sex-appeal." And he might have added that in the movies, Caruso was nearly nowhere.

What he said comes nearer to defining sex-appeal than most profound

discussions of the subject in the fan magazines. The difference between sex-appeal and drugs, pornographic books, shaded lights, perfumes, clothes and all the other things which ensnare the senses and help to make sex such a pleasant nuisance, is that the possessor of sex-appeal is supposed to create a passion concentrated on himself or herself alone. All the other things set up a general current of emotion—take it or leave it—but the superior *it* of the movies centers that emotion on a specific object. And according to the publicity boys, *it* is the supremely desirable quality for success in the pictures.

For instance: Tom Mix's horse, Our Gang and Jackie Coogan—all of them throbbing and burning and sighing and yearning with sex. For instance: Chaplin, Lloyd, and Keaton, the Keystone cops, the Klansmen in "The Birth of a Nation," the soldiers in "The Big Parade" and the elephants in "Chang"—simply lathered with *it*, to which they owe their success. Further: that thrilling sex-drama, "Nanook of the North" and those racy sexy movies, "The Ten Commandments" and "The King of Kings." As the Freudians say, "All is Sex"?

And on the other hand, the figures who shot into the movie sky like blazing comets—and shot out again: Theda Bara, Nita Naldi for example (let us out of charity not name those who are still trying to blaze). Did they pretend to have sex-appeal? Was the lack of that quality their ruin? Did their press-agents capitalize *it*? Or did they make their appeal to other things? In the words of Bobby Clarke, "Don't answer."

It is a reasonable guess that if the stars have to have *it*, to succeed, the great successful pictures would at least be touched with sex interest. Take a composite list, then, of the pictures which highbrows and lowbrows alike would want to see again, most of them tremendously successful in the past five or ten years. The list usually includes: "The Birth of a Nation," "The Four Horsemen," "Abraham Lincoln," an Our Gang comedy, "The Big Parade," a Harold Lloyd picture, a Buster Keaton picture, a Charlie Chaplin picture, "The Covered Wagon," "Caligari" (or "The Last Laugh"), "Passion" (or "Deception"), "Humoresque," "The King of Kings," a Fairbanks picture, a Pickford picture, "Anna Christie" and a half-dozen exceptional news-reels and scenics, all of them reeking with sex! The themes of the great, lasting, popular successes have been patriotism, mother love, up-from-poverty, justice and injustice, romance, war, religion, the awkwardness of youth, self-sacrifice, courage, slapstick comedy—almost anything rather than sex. To see "The Birth of a Nation" the public has paid about \$12,500,000; to see a single series of Chaplin films (the dozen in the Lone Star group including "The Pawnshop," "Easy Street," and so forth) the public came to the box-office for ten solid years and deposited twenty-five million dollars in nickels and dimes and quarters—and this is the same public that is supposed to be interested chiefly in *it*.

Miss Pickford and Miss Norma Talmadge have been in the movies about twenty years and their eyes must be a little weary of watching the flash of "vamps" and sex-ap-

pealers as they come, win popularity contests and vanish. Among the men with *it*, none has ever saved his company from bankruptcy, a little stunt done in his stride by Rin-tin-tin for the Warners. The pictures exploiting sex, in the days before the censor, filled the theaters for a time; but who remembers them or their stars now? Except "A Fool There Was," who remembers even the title of one of the forty vamp films Theda Bara made in the three years of her movie career?



The more erudite critics of the screen assure us that what we get from the pictures is not a direct pleasure, but a psychological reaction, usually a wish-fulfilment. Since we all want to be cowboys, great lovers and plaster saints, the moment we see these figures on the screen we identify ourselves with them, and each of us becomes W. S. Hart, John Gilbert and Douglas Fairbanks in turn (that is, where men are men) and Mary Pickford and Pola Negri and Janet Gaynor if we are women. Most of these same critics inform us that Americans are afraid, or ashamed, of sex, and therefore the sexual interest and appeal of the movies offers us a relief from intolerable inhibitions. This would explain, in a way, why men trampled on women to view the body of Rudolph Valentino and why the *it*-stars of to-day owe their popularity to women. But it does not explain its own whys and wherefores, and it leaves the question of sex-appeal murkier than ever.

Except for a few sensuous beauties from abroad, the girls with *it* are generally flappers, coming as near to

John Held's *Margie* as the human frame conveniently can; they are slender, bright-eyed, active, athletic and wise-cracking—exactly the opposite of everything voluptuous. The movie is forbidden by law to exhibit them in anything more impassioned than a lengthy kiss, and the screen, by its mechanical nature, is without contours and fragrance and color—it has recently added a moderately successful voice which just fails to carry the authentic note of desire under the films. Even if all the tired washerwomen and all the tired "kept women" of America imagined that these pictured adolescents were themselves, how would that explain the supposed effects on men?

There is another bit of psychoanalysis which seems to fit the case more neatly. The notion that bullies and boasters are shy little cowards at heart is one of the details of the hard-working inferiority complex. If we conspicuously lack a quality we are likely enough to claim an excess of it, and jingle three pennies in our pocket to give the effect of wealth. Possibly this happened to the movies. A few years ago they were in a bad way. They covered up their internal troubles—the failure to make good pictures—by putting on elaborate presentations with singing, dancing, lectures, ballets and whatever else could distract attention from the weakness of the "feature" film. At the same time they became aware of the fact that the one department in which their appeal must be at a minimum was the sexual, since the law was active and the screen worked against sensuousness. So, by a stroke of supremely fine showmanship, they began to claim for

themselves a monopoly of the quality they lacked, until sex-appeal became synonymous with the movies. After that, the path was easy, because people will always find what they have been told to look for. It is beyond doubt that spectators at the movies do find a degree of sex-appeal in the players—but it is synthetic, being ninety per cent publicity.



The producers of the movies know their business and in spite of their high-minded devotion to Art, are interested in financial returns. They are quite right in believing that a star and a picture can be put over on sex-appeal alone—once. Perhaps two or three times. But their own experience is proof that *no permanent success has yet come to a player who made sex his or her chief appeal and that failure for such players has been rapid, constant and inevitable.*

And even if the movies failed to supply the proof, there is plenty on the side-lines. The same people who go to the movies sing popular songs, listen to the radio, follow the comic strips and pay millions to see vaudeville every year. If sex is so essential to the movies, it ought, at the lowest estimate, to bring some success in these other fields. And the outstanding successes, year after year, in these fields are totally removed from sex interest. The most popular song America ever had was concerned with bananas; its preëminent composer writes romantic, but never sexy, songs. A few risqué couplets may trickle rarely over the radio, but the high spots of popularity lasting months and years are reserved for songs about Ramona or Carolina or pals or sweethearts. In dancing,

the Charleston and the Black Bottom lay claim to more than a trace of the rhythm of sex, but ninety per cent of the fox-trots and one-steps which rival them in popularity are scientifically pure. The most widely circulated of all comic strips deals with a husband and wife, both middle aged, the husband trying to escape the social ambitions of his wife: in case that sounds too abstract, their names are *Mr. and Mrs. Jiggs*. Examined by specialists, this strip, and all the other famous ones, assay less than one tenth of one per cent sex-appeal.

Al Jolson can sing a rowdy song as well as any one; he probably has sex-appeal; but on the stage and in the movies his name is associated with sentimental songs and the greatest of these is "Mammy," not red hot mamma. The one acrobat who can build a show around himself and carry it on the road for a year after a year in New York, and do this time after time, is Fred Stone—his shows are hermetically sealed against suggestiveness. The prince of impresarios, Florenz Ziegfeld, has deliberately refined and reduced the element of sex-appeal in his productions until now they are chemically pure. Vaudeville, by official decree, is as intoxicating as near-beer.

Even on the stage sex-appeal is a secondary virtue. It manifests itself there a hundred times more effectively than it can in the movies; it uses the timbre of a voice, the proximity of flesh and blood, the colors of lights and the voluptuous flow of clothes. There have been some pretty girls and some handsome men who have achieved a sort of fame without talent. But the highest

rank—the rank that stays on top—does not know them. Neither Julia Marlowe nor Mrs. Fiske was ever advertised as appealing to the sexual interest; nor, to-day, is that suggestion prominent in the publicity for Miss Barrymore, Miss Cornell, Miss Hayes or Miss Fontanne. Nor for the Marx Brothers or Fannie Brice or W. C. Fields or Joe Cook. As you go down the list it begins to be evident that the degree of sex-appeal claimed for an individual is the precise measure of the individual's talent: the greater the emphasis on sex, the less talent and probably vice versa.

With a single exception. Valentino had talent—he was “a natural” in the movies—and he had sex-appeal. He seemed to break through the limitations of the screen and to express it. His career was brief; his best picture was the one made while he was still obscure. From the moment he began to be touted as the passionate sheik and publicity began to center on sex, Valentino began to decline. He died young, still far ahead of his rivals, each of whom has had a brief day of popularity, some of whom are already forgotten. John Barrymore's career on the stage and in the movies, plots the true course of sex-appeal; he had *it* in “The Jest,” threw it away and became a great actor in “Hamlet,” went back to it and became a movie star not generally ranked with the greatest.

The delightful discovery of the present age is that if you can't do very much about sex, at least you can talk about it and, naturally, those least competent to act, talk most. It has become obligatory to be a little vulgar about sex—otherwise

people snatch a scientific bomb out of Freud and throw it at your head, accusing you of all sorts of unnameable things. The highly literate get their line of conversation from psychoanalysis (or what they imagine is psychoanalysis) and the rest of us from the movies; but it remains pure (or impure) conversation just the same—whereas sex is an active principle, not a subject for abstract discussion. After generations of hearing from books and the stage that “love is enough,” we are beginning to learn from Freud and the movies that love may be too much. Big type about sex-appeal is the movies' revenge on the censor.

That is the genesis of the ballyhoo about *it*. By flattering every one, it succeeds. Women fancy themselves sirens and men think they are home-breakers and both are convinced that they are just the type to commit all the crimes in the calendar “for love.” (Miss Rebecca West remarked recently that this sort of fierce and abiding passion is more often felt for a really good restaurant than for a really bad man or woman.) The publicity of sex-appeal, guaranteeing success and happiness, implies that *it* is more important than talent or genius or character. The hard fact is that in the movies and on the stage, and perhaps in ordinary life as well, success has generally been won by less exciting virtues—by hard work and a few other capacities which have not fancy new names and cannot be used for publicity. Such as humor and technical knowledge, and appreciation of human nature, and a dash of genius.

Sex being central to human life, all these things are related to sex—

not to sex-appeal, but to the mysterious tangle of emotions which makes up the sexual nature of man. The people who possessed these gifts have done something about them. Even Casanova and Ninon de Lenclos, the two greatest exemplars of sex-appeal, did not attempt to live without using their wits, as well. But the exploiters of sex-appeal to-day give one the impression of saying, "Look at me; I've got *it!*"

Well, *it* was as good a show as any other novelty for a while, and the public paid to look. But in spite of being ninety per cent morons, it has pretty consistently turned to other things—a good dog or a funny man or a woman who could make it cry. Some one ought to look into this and give us a revised estimate on public stupidity. Or perhaps it is only the movie producers who underestimate the public.

SWAN-SONG

ROSELLE MERCIER MONTGOMERY

Dying, I shall be granted my desire;
 In death it will be given me to sing,
 To be a vessel for the lyric fire,
 To voice a secret, burning thing.

They cannot guess the wound beneath my breast
 Who stand about to watch me by this pool
 Whereon I preen myself and pose—so best
 To pause and please each passing fool.

My radius, this mirror, where upon
 I float all day in studied posturings;
 This lilled pond holds all my sky and sun—
 I have no need, no need for wings!

I curve my slender throat that holds no cry:
 The wound beneath my breast bleeds not at all;
 We make a placid scene, the pool and I;
 The days, a dull processional.

But some day, some day, I shall win release;
 My wings will find the sky, assail the sun;
 My mounting cry will shatter mirrored peace—
 The earth will hear my clarion!

And all the wondering fools will hear, and stare—
But one will understand who watches there!

WOMEN AS HONEST GRAFTERS

With a Moral Drawn from a Recent Celebrated Case

IDA M. TARBELL

A QUIZZICAL and daring Midwest columnist writes that at a gathering of ladies in his town to discuss law enforcement, the president of the league, who had just returned from Europe, entertained her guests before calling the meeting to order by showing a number of beautiful gowns which, she gleefully boasted, she had been able to bring in, duty free. This entertainment over, the meeting was called to order and there was a severe arraignment of nullificationists.

Many an ocean traveler could match this skit from personal experiences with ardent advocates of prohibition law enforcement, whose deep concern on the voyage was how to get their foreign purchases in without paying duty.

A mockery of the situation is that many of the most successful of these smugglers are beneficiaries of the tariff. I have heard a custom-house official, made cynical by experience, declare that the women who require closest watching are those made rich by highly protected industry. Apparently they think if the Government takes care of them so liberally in one way it should take care of them in all ways. They are an ironical parallel to the columnist's ladies who began their tea-party in support

of law enforcement by rejoicing over law evasion.

The bad logic and bad morals of these exhibits can be laughed off as specimens of human inconsistency, but they have too real a bearing on the serious question of what we are to expect from women in making and administering laws, to be dismissed with a cynical "That's that." Nor can we fairly escape by pointing out the similar inconsistencies of men—men who vote "dry" and live "wet," men who are the master smugglers, not dallying with mere articles of personal and home adornment like women, but carrying on big and lucrative trades in forbidden goods. These facts in no way change the quality of the women's logic and morals; they remain just as bad and absurd, and they take the life out of that argument for giving women votes, and—sincerely believed—the argument that she would purify politics because inherently so much more honest than men, also so inexperienced in grafting and favoritism that she would neither understand nor be able to adapt herself to the widespread subtle practices that go on under the head of "honest graft." That is, women were to purify politics through their very innocence.

Women who argued that their sex

knew nothing of the gentle art of grafting overlooked the vicious system of handling household and personal expenses under which the average American woman has lived for generations—and still does in some quarters—a system not only inherently humiliating but inherently dishonest. It is an old story.

As heads of households they spent the bulk of their husband's income. Yet they had to ask for every dollar—a humiliating condition that probably has been the cause of as much domestic unhappiness in this country as any other one thing. There are few of us who have lived to be fifty or over that cannot remember seeing a woman almost in hysterics because she must ask her husband for money. Almost universally among the well-to-do class the charge system prevailed—and still does. Women run up bills at the butcher's, the baker's, the candlestick-maker's, the dry-goods store, the flower-shop. I have known women of wealth who could run up bills into the thousands of dollars and yet who rarely had five dollars in their purses.

Now, what is the inevitable effect on a woman in this situation? She runs up her bills recklessly, generally without considering prices. The end of the month when these bills come in is a dreadful moment. When she knows she has seriously overrun, she sticks a bill in the back of a drawer, hoping that next month she can economize and later dare present it.

Another habit born of this unsound practice has grown up among women of various classes, particularly women of wealth. Shop-keepers, tailors, dressmakers, come to know those of their customers who

do not handle their own money. They have been known to give a woman a commission on the very gown that she bought. The price is one hundred dollars—it is billed to her husband at a hundred and ten. She gets the ten dollars. She is doing, however, just what the cook in her kitchen is doing. The cook arranges with a butcher to give him all her orders if he will give her a percentage. It is one of the commonest practices of servants in households where a woman has no allowance to which she rigidly holds expenditures.



The woman who practises these evasions and makeshifts rarely understands why her husband is angry when he discovers them. She does not know that if he found a business associate doing what she does, it would quickly lead to separation, perhaps prosecution. In his code his wife is dishonest. In her code he is unkind, unfair, and that is, to a degree, true, for he does not reflect that no business associate would tolerate the situation into which he forces his wife.

Tens of thousands of the girls who annually enter one kind of business or another in this country go from homes where these more or less unsound, unfair and dishonest practices in handling the domestic budget prevail. It is inevitable that these girls have a blunted sense of *meum* and *tuum*. They go into offices which, five times out of ten, are honeycombed with small graft. They do as they see others doing. My first realization that one must individually watch her steps in an office if she did not wish to become a petty grafter, was when I discovered my-

self using office stamps on personal letters! It came to me with a sudden shock that I was stealing. This realization not only made me watchful of myself but of others. I think it may safely be said that in hundreds of offices in this country, where there is no scientific system of handling supplies, employees keep themselves and their friends in pencils, pads, stationery and frequently postage-stamps. I have known of a sheet of a hundred postage-stamps being presented to a friend by a young woman in charge of office supplies. If you had told this girl she was stealing she would have been horrified, she belonged to the office—you had your perquisites, naturally. I am told it is a fact that many business men never buy stamped envelopes, although they are more convenient, because grafting employees make it too expensive.

It is not always the underling that is at fault. This pilfering is not infrequently encouraged by a purchasing-agent who gets his little commission on supplies—the larger the order, the larger the commission; and he encourages those under him to use for their own purposes the pads, pencils and so on, which belong to the establishment. Worse, he involves them in his grafting until they become, in spite of themselves, his protectors.

All this is petty, a matter of cents, a few dollars at most; but let the practitioners advance, find positions in institutions where the purchasing and distributing runs into tens of thousands or more dollars, laxly supervised, and the thieving goes on, involves associates, grows almost by necessity, once established, until discovery overtakes it, with the inevi-

table disgrace, though probably not in most cases public scandal. It is "hushed up" for the good of the college, church, hospital, "home."

Such is the school in which large numbers of young women in their struggles for economic independence are getting their ideas of the way things are done in the active world. How can we expect a woman, familiar in private and business life with such practices, to be shocked when she comes upon them in public life. There she naturally gravitates to that considerable group found in every party—conservative, liberal, radical—always on the lookout for what they can get out of it. To them every election, every department, every new undertaking of the Government, is a legitimate field for exploitation. When efficiency, the good of the public, the sacredness of law are urged, their answer is, "Let us talk patronage."

It was these long-known, long-fought political boodlers that women were to overwhelm, put out of business. The idealistic suffragist spurned the idea that there would be women ready to strengthen such ranks.

It is high time that the great body of fine women political leaders in this country realized that they have other obligations to their sex than teaching how the laws are made and repealed and how to mark a ballot. They have a primary work to do in exposing in some kind of vivid and intelligible way to the mass of women what dishonesty in politics is; its relation to dishonesty in daily life, domestic or business—how related it is and how certain it is that

the woman whose sense of honesty has been dulled by the practices of her world, will carry on in political life quite as effectively as men do.

In the last two years we have had a warning, terrible and humiliating, of this fact—the case of Mrs. Knapp of New York State. “Let us forget Mrs. Knapp,” I hear women say. Rather, let us remember her. She is a perfect example of what we are in for as long as we try to deceive ourselves by believing that a woman familiar with and accepting as a matter of course the petty grafting of domestic, business and professional life will hesitate at the “honest graft” of politics.

And what is the case of Mrs. Knapp?

It began for the American public outside, and for not a few inside, New York State in the summer of 1924, when the Republican State Convention, nominated a teacher of Syracuse, Mrs. Florence Knapp—well known locally as an adroit politician—for Secretary of State. The following November Mrs. Knapp was elected.

Her election was a matter of jubilation among women, in and out of the State, and more than one whispered to the victorious lady, “It’s only the beginning. We’ll make you governor one day.”

New York’s new Secretary of State began her work in a blaze of glory, for her first duty was a spectacular one, swearing in the Governor. The adoring young women reporters described her as clad in “peach-colored velvet, a picture of loveliness.” There were those who remarked that “It was a Knapp rather than a Smith day.”

Whatever Mrs. Knapp’s interest in clothes and ceremony, she was like a strict school-teacher in office from the first day. “Nine o’clock in the morning is the hour at which this office opens,” read the notice she ordered tacked on the door. “Please report promptly.”

She hastened to make it clear to those in her department that all activities centered in her, and that she proposed to understand them all, herself perform them, unless she wished to delegate them. She extended this supervision even to the signing of the thousands of routine documents which went out from her office. Her bold and vigorous signature, done in a distinctive purple ink she had adopted, was soon spread all over the State of New York.



It was not the routine work of her department that made Mrs. Knapp important, however; it was the fact that her first year in office (1925) was the year for the New York State census. This really gigantic undertaking is largely in the hands of the Secretary of State, subject only to certain precedents which the experience of the past has imposed.

Mrs. Knapp attacked her problem with confidence, even eagerness, talking freely of her intention not only to make the completest enumeration that ever had been made, but do something for women as well as herself. She had the generous idea that the seventy-five hundred or more enumerators required to count the people should be women—where possible, teachers. The politicians took care of that. The fraternity have but few ways of honestly rewarding those who aid them. They

are glad enough when once in ten years there comes a chance to help a friend to fifty or one hundred extra dollars. They may be very glad, indeed, to have that extra fifty or one hundred dollars come into their own households. They explained to Mrs. Knapp that it had been the practice to allow the district leaders of the party in power to name the enumerators. Mrs. Knapp, being eminently practical, saw the point, and cheerfully conceded that in such a way the best interests of all could be served. She did insist, however, that women be given their share. Critical statisticians who have examined the New York census of 1925 with none too kindly an eye to Mrs. Knapp, declare that, in their judgment, this large use of women was wise, that they took more pride than the men did in making neat, legible and complete returns, and that it would have made for efficiency if the entire enumerating force had been women.

But counting the inhabitants was not the only business of the census which Mrs. Knapp was superintending. The largest sum ever appropriated for a State census had been given her—\$1,200,000—with the understanding that there should be a thorough tabulation of all the information obtained in the enumeration, a tabulation which would give a complete picture of the condition and needs of the citizenship of the State.

Mrs. Knapp herself was enthusiastic over this scientific tabulation. She reported after the counting was finished in June of 1925 that she had money enough left for it. She promised that it should be something that would be of inestimable value, particularly to welfare agencies; but

a few months later those interested in census tabulation received a body blow—the work must be suspended, Mrs. Knapp announced, for lack of funds.

Now, running out of funds in a large, at least semi-political undertaking, the expense of which it is difficult to forecast because it comes only once in ten years, and must be put through in a short period of time by untrained people, is not, in itself, astonishing. What was astonishing was the casual way in which the Secretary of State made her announcement, and the large sum, three hundred thousand dollars, which she told the legislature would be necessary if the work was to be properly completed.

Mrs. Knapp, however, was not to have an opportunity to handle this sum even if it were voted, for at the end of her term, January 1927, she was retired from office. Though out of office, she was by no means out of public life. Indeed she went back to her home one of the few conspicuous political figures among the women of the county, her State followers on all sides continuing to whisper in her ear, "We'll make you governor."

And once governor, what might not happen. The governorship of New York has always been one of the roads to the White House. It is inevitable that some day a woman will be President of the United States, why should it not be Florence Knapp? She had played her part as she conceived men played theirs in politics, had used her influence as she conceived they used theirs, had taken her perquisites as they did—

she had been quite "regular." She had the right, as she saw things, to count on a future under their protection. She apparently thought it mattered very little to her fellow politicians that she had left the census hanging in mid air—her great job incomplete—in spite of the large sum with which she had been intrusted. And she no doubt was right in so thinking.

But Florence Knapp had left out of her calculations the burning interest certain non-official—non-political—people took in the results of her census tabulation. One of these began to look closely into the way she had spent her money. He had not been long at this self-imposed task when he ran upon what looked like evidence of something he had not suspected—a considerable sum at least, of Mrs. Knapp's money had been handled in an out-and-out illegal way. The gentleman did not keep still about his suspicion. The State was soon buzzing with it—and buzzing louder because at the same time came a rumor that Mrs. Knapp when she left Albany at the end of her term, had ordered sent after her all of the pay rolls, cards and memoranda connected with the taking of the census—documents belonging of course not to her but to her office.

An investigation was undertaken and when a report was made in September 1927 it bristled with charges of "nonfeasance," "misfeasance" and "malfeasance," backed by apparent proofs. The one in the multitude which struck the casual reader hardest was that after work on the census had been shut down entirely for lack of funds, Mrs.

Knapp had gone on paying salaries to various people. The majority of these people were members of her own family, no one of them as far as could be discovered had ever done any census work and some of them were not residents of the State.

~

And there was something still more startling: apparent proof that Mrs. Knapp had, throughout her term, been signing people's names to vouchers and checks, without proper authorization. This might never have been noticed if it had not been for the purple ink. It was hardly likely that all her friends and relatives used her royal color.

The report of the investigation was laid before the Governor of the State, Alfred E. Smith. I doubt if Governor Smith in his entire eight years of service received a more unwelcome document. The man hated inefficiency and dishonesty, and this looked like both. Then the charges concerned a woman, and since the granting of the suffrage, no man in public office had done so much as he had to help women to play a useful part as public servants. He had had unusual success in his many appointments. There was, too, a disturbing political angle—Mrs. Knapp was a Republican and he a Democrat. Any notice that he would take of the report was bound to be met by the cry that she, poor woman, was a victim of his brutal partizanship. But Governor Smith, though he undoubtedly detested his duty, did not shirk it. No more did the Attorney-General who, being a Republican, would probably have preferred a live bomb on his desk to these charges against his colleague.

A commissioner, an experienced and able man, was promptly appointed to investigate the findings. Those who may have believed that the case against Mrs. Knapp would evaporate when subjected to the rigid scrutiny of an honest and trained investigator, were soon disabused. The case was seen to be worse than any one had believed. Not only had Mrs. Knapp diverted funds to her own pocket by skilful forgery of the names of relatives and friends, but she had paid from census moneys both her butler and her lawyer. More serious yet, she had involved subordinates associated in the work in such a way that the commissioner considered them criminally liable. The report was a terrific arraignment, making a criminal prosecution inevitable. The prosecution ended finally in April 1928, in a verdict of guilty. The crime of which Mrs. Knapp was convicted, carried a penalty of from five to ten years' imprisonment, she received but thirty days. The mildness of the sentence was but an expression of a reluctance, even sorrow, that almost without exception the men forced to deal with her case had shown.

And that, in outline, is the case of Mrs. Knapp.

How explain her? How explain a woman who, before a report drawn from official records, charging her with repeated abuses of her position of trust could smilingly wave them all aside; who could resist every effort of investigator and prosecutor to persuade her to testify; who, when she was forced to come into court by the Judge's notice that if she did not he would serve a warrant, came with

lofty disdain, faced the most damning testimony with a toss of her head; and who, after the jury had brought in its verdict, could leave the courtroom, "still maintaining," as the correspondent of one great newspaper wrote, "the outward manner of a tolerant lady who is harassed by a number of annoying persons."

Never for one moment did Florence Knapp face realities—never for a moment show a consciousness of guilt. She had moments of alarm, anger, even of tears, but they were incidental. She swung back quickly into self-confidence, and apparent settled conviction that it was unthinkable that *she* could be convicted; she meant too much to the "cause of women," to her party; they would not be swayed by the evidence of peccadilloes such as hers; "pin money" a friend called it, the "honest graft" everybody in positions of trust enjoyed. Considering the sum which had been intrusted to her, \$1,200,000, how small the few thousands she had taken—certainly not proportionately more than the rake-off many a purchasing-agent of an institution enjoyed in secret commissions.

Moreover, she was not the only one, as everybody knew, who had friends on the census pay-roll, drawing money and doing little or no work. She knew, for she had found places for these persons herself. She had accepted the task of placing them as a necessary and legitimate part of her political duty. It might not be true that these members of the assembly, these gentlemen in high places who had insisted on positions for friends, whether there was work to do or not, received anything from the pay en-

velop; but that they had their pay of some kind, she knew well enough. It was all part of the established system of "honest graft."

And there is the master key to the downfall of Mrs. Knapp—"honest graft." It had honeycombed her world—home, school, business, social, public life. She probably had accepted it from childhood as a lubricant on the hard road she had to travel to rise from poverty. She came into politics prepared to accept to the full what she believed to be the law of politics—the rule of fear and favor, and she was already skilled in applying it. She could not believe that her political backers would allow her to suffer for doing what she apparently believed they all did.

What shocked her political backers, or perhaps scared them so that they shamelessly deserted her, publicly at least, in her day of need, was less, I take it, that she had profited than that she had left so many traces behind her—that, and her frank dependence on them, her faith that they would not dare let her be pun-

ished. When they did not save her, she believed, or at least claimed to believe, that it was because they saw that she was about to take from them offices which they wanted for themselves. "They feared me," she told a friend on the eve of her sentence, "*feared I would be Hoover's running-mate!* They wanted a man—I am the victim of man's jealousy of women in politics. It was necessary to ruin me."

However exaggerated Florence Knapp's self-deception, her apparent inability to believe that she had done anything out of the ordinary, there is nothing illogical about her case—given the practices of the social, business and political worlds in which she had always lived.

And if one Mrs. Knapp is possible, others are. That is why she should not be forgotten. Let us not delude ourselves. As long as we tolerate the system of "honest graft" which to-day is thriving and growing everywhere in American life, we can count on future Florence Knapps as we can on future Harry Sinclairs and Albert B. Falls.

THE TWILIGHT OF SCIENCE

Is the Universe Running Down

BERTRAND RUSSELL

IT IS A curious fact that just when the man in the street has begun to believe thoroughly in science, the man in the laboratory has begun to lose his faith. When I was young, no physicist entertained the slightest doubt that the laws of physics give us real information about the motions of bodies, and that the physical world does really consist of the sort of entities that appear in the physicist's equations. The philosophers, it is true, threw doubt upon this view, and have done so ever since the time of Berkeley; but since their criticism never attached itself to any point in the detailed procedure of science, it could be ignored by scientists and was in fact ignored. Nowadays matters are quite different; the revolutionary ideas of the philosophy of physics have come from the physicists themselves and are the outcome of careful experiments. The new philosophy of physics is humble and stammering where the old philosophy was proud and dictatorial. It is, I suppose, natural to every man to fill the vacuum left by the disappearance of belief in physical laws as best he may, and to use for this purpose any odds and ends of unfounded belief which had previously no room to expand. When the robustness of the Catholic faith decayed at the

time of the Renaissance, it tended to be replaced by astrology and necromancy, and in like manner we must expect the decay of the scientific faith to lead to a recrudescence of pre-scientific superstitions.

Whoever wishes to know how and why scientific faith is decaying cannot do better than read Eddington's Gifford lectures entitled "The Nature of the Physical World." He will learn there that physics is divided into three departments. The first contains all the classical physics, such as the conservation of energy and momentum, and the law of gravitation. All these according to Professor Eddington boil down to nothing but conventions as to measurement; true, the laws they state are universal, but so is the law that there are three feet in a yard, which, according to him, is just as informative concerning the course of nature. The second department of physics is concerned with large aggregates, and the laws of chance. Here we do not attempt to prove that such and such an event is impossible, but only that it is wildly improbable. The third department of physics, which is the most modern, is the quantum theory, and this is the most disturbing of all since it seems to show that the law of causality, in which science has hith-

erto implicitly believed, cannot be applied to the doings of individual electrons. I shall say a few words about each of these three matters in turn.

To begin with classical physics. Newton's law of gravitation, as every one knows, was somewhat modified by Einstein, and the modification was experimentally confirmed. But if Eddington's view is right, this experimental confirmation does not have the signification that one would naturally attribute to it. After considering three possible views as to what the law of gravitation asserts about the motion of the earth round the sun, Eddington plumps for a fourth, to the effect that "the earth goes anyhow it likes," that is to say, that the law of gravitation tells us absolutely nothing about the way the earth moves. He admits that this view is paradoxical, but he says:

"The key to the paradox is that we ourselves, our conventions, the kind of thing that attracts our interest, are much more concerned than we realize in any account we give of how the objects of the physical world are behaving. And so an object which, viewed through our frame of conventions, may seem to be behaving in a very special and remarkable way may, viewed according to another set of conventions, be doing nothing to excite particular comment."

I must confess that I find this view a very difficult one; respect for Eddington prevents me from saying that it is untrue, but there are various points in his argument which I have difficulty in following. Of course all the practical consequences

which we deduce from the abstract theory, as for example that we shall perceive daylight at certain times and not at certain other times, lie outside the scheme of official physics, which never reaches our sensations at all. I cannot but suspect, however, that official physics is just a little bit too official in Eddington's hands, and that it would not be impossible to allow it a little more significance than it has in his interpretation. However that may be, it is an important sign of the times that one of the leading exponents of scientific theory should advance so modest an opinion.



I come now to the statistical part of physics which is concerned with the study of large aggregates. Large aggregates behave almost exactly as they were supposed to do before the quantum theory was invented, so that in regard to them the older physics is very nearly right. There is, however, one supremely important law which is only statistical; this is the second law of thermodynamics. It states, roughly speaking, that the world is growing continuously more disorderly. Eddington illustrates it by what happens when you shuffle a pack of cards. The pack of cards comes from the makers with the cards arranged in their proper order; after you have shuffled them, this order is lost, and it is in the highest degree improbable that it will ever be restored by subsequent shuffling. It is this sort of thing that makes the difference between past and future. In the rest of theoretical physics we are dealing with processes that are reversible; that is to say, where the laws of physics show that it is possible for a

material system to pass from state A at one time to state B at another, the opposite transition will be equally possible according to these same laws; but where the second law of thermodynamics comes in, this is not the case. Professor Eddington enunciates the law as follows: "Whenever anything happens that cannot be undone, it is always reducible to the introduction of a random element analogous to that introduced by shuffling." This law, unlike most of the laws of physics, is concerned only with probabilities. To take our previous illustration: it is of course possible that, if you shuffle a pack of cards long enough, the cards may happen to get into the right order by chance. This is very unlikely, but it is far less unlikely than the orderly arrangement of many millions of molecules by chance. Professor Eddington gives the following illustration: suppose a vessel divided into two equal parts by a partition, and suppose that in one part there is air, while in the other there is a vacuum; then a door in the partition is opened and the air spreads itself evenly throughout the whole vessel. It might happen by chance that at some future time the molecules of the air in the course of their random movements would all find themselves again in the partitions in which they originally were. This is not impossible; it is only improbable, but it is *very* improbable. "If I let my fingers wander idly over the keys of a typewriter it *might* happen that my screed made an intelligible sentence. If an army of monkeys were strumming on typewriters they *might* write all the books in the British Museum. The chance of their doing so is decidedly

more favorable than the chance of the molecules returning to one half of the vessel."

There are an immense number of illustrations of the same kind of thing. For example, if you drop one drop of ink into a glass of clear water, it will gradually diffuse itself throughout the glass. It might happen by chance that it would afterwards collect itself again into a drop, but we should certainly regard it as a miracle if it happened. When a hot body and a cold body are put in contact, we all know that the hot body cools and the cold body gets warm until the two reach the same temperature, but this also is only a law of probability. It might happen that a kettle filled with water put on the fire would freeze instead of boil; this also is not shown to be impossible by any of the laws of physics, it is only shown to be highly improbable by the second law of thermodynamics. This law states, speaking generally, that the universe tends toward democracy, and that when it has achieved that state, it will be incapable of doing anything more. It seems that the world was created at some not infinitely remote date, and was then far more full of inequalities than it is now; but from the moment of creation it has been continually running down, and will ultimately stop for all practical purposes unless it is again wound up. Professor Eddington for some reason does not like the idea that it can be wound up again, but prefers to think that the world drama is only to be performed once, in spite of the fact that it must end in æons of boredom, in the course of which the whole audience will gradually go to sleep.

Quantum theory, which is con-

cerned with individual atoms and electrons, is still in a state of rapid development, and is probably far from its final form. In the hands of Heisenberg, Schrödinger and Co., it has become more disturbing and more revolutionary than the theory of relativity ever was. Professor Eddington expounds its recent developments in a manner which conveys more of it to the non-mathematical reader than I should have supposed possible. It is profoundly disturbing to the prejudices which have governed physics since the time of Newton. The most painful thing about it from this point of view is that, as mentioned above, it throws doubt upon the universality of causality; the view at present is that atoms have a certain amount of free-will, so that their behavior, even in theory, is not wholly subject to law. Moreover, some things which we thought definite, at least in theory, have quite ceased to be so. There is what Eddington calls the "principle of indeterminacy"; this states that "a particle may have position or it may have velocity, but it cannot in any exact sense have both," that is to say, if you know where you are, you cannot tell how fast you are moving, and if you know how fast you are moving, you cannot tell where you are. This cuts at the root of traditional physics, in which position and velocity were fundamental. You can only see an electron when it emits light, and it only emits light when it jumps, so that to see where it was, you have to make it go elsewhere. This breakdown of physical determinism is utilized by Eddington in his concluding chapters to rehabilitate free-will.

Professor Eddington proceeds to base optimistic and pleasant conclusions upon the scientific nescience which he has expounded in previous pages. This optimism is based upon the time-honored principle that anything which cannot be proved untrue may be assumed to be true, a principle whose falsehood is proved by the fortunes of bookmakers. If we discard this principle, it is difficult to see what ground for cheerfulness modern physics provides. It tells us that the universe is running down, and if Eddington is right, it tells us practically nothing else, since all the rest is merely the rules of the game. From a pragmatic or political point of view probably the most important thing about such a theory of physics is that it will destroy, if it becomes widespread, that faith in science which has been the only constructive creed of modern times, and the source of virtually all change both for good and for evil. The eighteenth and nineteenth centuries had a philosophy of natural law based upon Newton. The law was supposed to imply a Lawgiver, though as time went on this inference was less emphasized; but in any case the universe was orderly and predictable. By learning nature's laws we could hope to manipulate nature, and thus science became the source of power. This is still the outlook of most energetic practical men, but it is no longer the outlook of men of science. The world according to them is a more higgledy-piggledy and haphazard affair than it was thought to be. And they know much less about it than was thought to be known by their predecessors in the eighteenth and nineteenth centuries. Perhaps

the scientific skepticism of which Eddington is an exponent may lead in the end to the collapse of the scientific era, just as the theological skepticism of the Renaissance has led gradually to the collapse of the theological era. I suppose that ma-

chines will survive the collapse of science, just as parsons have survived the collapse of theology, but in the one case as in the other they will cease to be viewed with reverence and awe. Perhaps this is not to be regretted.

CROSSING THE ATLANTIC

ANNE LLOYD

Gray mountains hid horizons day on day—
 Cliffs of gray water hard as cliffs of steel—
 We rose to surging summits plumed with spray,
 Then slid to dark abyss on quivering keel.
 The ship was mere obliqueness; and the sky
 Was reticent as stone—as stern and cold—
 A bleak obliteration that the eye
 Searched vainly for a trace of blue or gold.

Yet as we balanced on the dripping deck,
 Pelted with spume and tasting bitter brine,
 Life quickened in us . . . little did we reckon
 Of tempests or the wind's lugubrious whine . . .
 It was an elemental thing to be
 Learning the august fury of the sea.

No hint was told of harbors. Fog that seemed
 Impenetrable as an iron door
 Shut out the world, save where the black prow creamed
 Its progress like a shining semaphore.
 Only the hoarse call of the fog-horn broke
 Upon the deep uninterrupted thrum
 Of engines, yet a sense of home awoke
 Within us with its warm delirium.

Darkness came down—eerie in its gray shroud
 That wrapped us as we pressed against the rail . . .
 Suddenly stars appeared! We cried aloud!
 A welcoming wind had torn aside the veil . . .
 Lights flashed ahead . . . O well-beloved scene!
 The thrumming ceased. We were at Quarantine.

SKIN FOR SKIN

A Tale of the Bloody Ground

FISWOODE TARLETON

LISTLESS town. Silent town except for the dry-land sled crunching the mud of Main Street; dry-land sled, pulled by two dreamy mules, runs the hogs out of their wallows and sends the cows to the board-walks to nose among the piles of trash in front of the business stores. Silent men whittling under the porticoes, their faces hidden beneath wide-brimmed hats. Hill women slide off their mules and timidly enter the general store, carrying saddle-bags and their least ones.

In the court-house yard mountain men lie flat under the elms and watch from under their big hats. The big hats cover eyes and the thick elms throw shadows over the unmoving forms. Women with their backs against the elm-trunks and their feet drawn up under their long skirts stare across at the business stores. Children try to play, start games and check them to watch new-comers entering town. Up at Five Corners where hillmen from the deep hinterlands swing into town, a knot of folks gathers together. Some squat by a pasture fence. Some lean against the trees and whisper among themselves. Gathering clans. Ominous silence.

Three men sitting on the court-house steps waiting for the hour to open court. Old Judge True, old cir-

cuit-rider, veteran of justice in the hinterland counties; Ked Pelton, the Commonwealth's attorney; and the sheriff—High-Sheriff Floyd Jett. They, too, like the gathering hillmen, are watchful, knowing the responsibility a court term imposes on a mountain town, feeling the tenseness that begins to tighten like a drum. Fall term of court. Bloody term! Heavy docket because the hot summer, drying the roads, lures men away from their own districts, brings them to the settlements and the rat-houses, rat-houses where mountain liquor stirs up old grudges and hates.

"That Noah Valentine wants to deliver up his boy," says the judge to the sheriff in a low voice, "providin' he gits only a month in jail. I've got a mind to give that boy of his, Ram Valentine, a year. Twice he's broke up Baptist prayer-meetin' an' mauled the preacher."

The sheriff bites the end off a stogy, throws a glance at the grove dotted with the forms of hillmen and edges closer to the judge on the step.

"Funny thing though, Judge," whispers the sheriff, "Ram Valentine, Noah's boy, has gone to the devil all at once. Didn't use to be bad. Just lately been getting into trouble. He used to be strong for learnin', a dreamy sort of boy. De-

cent. Then almost overnight he gets bad. I think it's influence. His people are just naturally law-breakers. Somehow, I can't see him as all bad."

"Huh," says Old Judge True, filling his mountain clay pipe. Suddenly he looks at the sheriff. "Reckon that outlaw, that 'Friar' Valentine, brother of Noah's, is in the county?"

Floyd Jett strikes a match and lights his stogy. His breath blowing out the match says, "no."

The sheriff once more lets his eyes roam; they seem to take in the grove and the mud street from end to end. "Funny thing," he says after a while, "but do you notice that every one of the Valentines and every one of their kin, down to fourth cousins are in town. They're all here, and their women and kids, *except*, the Friar and Ram. No, there's one more left behind, that eighty-year-old bed-ridden mother of Noah and the Friar. Remember a little over a year ago, when that government man was shot down on Meddlesome Creek, near their cove? And remember that every damn one of the Valentines, the O'Gowds and the Taneys were in town, before the report got here of the shooting? So that they'd all be seen and accounted for but the Friar? Who shot the government man? 'Must be the Friar,' says Noah, his brother. 'Where's the Friar?' I asked. 'Dunno,' he said. None of 'em knew where the Friar was. Huh."

"Everybody's talking about a hat," says the Commonwealth's attorney leaning over closer to the judge and sheriff. "The grand jury can get no farther with some of these murders than to hear witnesses say

that they heard a shot, saw a man fall, or found a body along the creek-bed or on some trail and they saw a man with a funny looking hat. Beard and hat poking themselves over some laurel scrub."

"Well," says the judge, rising and stretching, "reckon I'll open co'te."

The prosecutor and sheriff rise. The people in town stir themselves. Hillmen slowly cross the mud road from the business store porticoes; they come in groups and stop on the board-walk in front of the court-house. Those in the grove rise, adjust their galluses. Women under the elms jerk their children together.



A low whispered call comes from the court-house doorway. Floyd Jett sees Saul Bankey, the jailer, beckoning to him from the shadows inside the building. The sheriff stretches, puts his hands into his pockets and leisurely climbs the steps. Inside the building he stops and looks questioningly at the jailer, who holds a big brass bell by its clanker. The jailer points with his thumb toward the rear of the long hallway and leads Jett past the cells and past the stairway. The sheriff follows his deputy out the back door to the stable and closes the door. They stand in the darkness for half a minute. The county officer's white horse whinnies and stamps on the floor of his stall, slowly becoming a froth-like splash against the dark side of the stable. A figure suddenly steps out of the shadows when Saul Bankey throws a whisper.

"What's the trouble, Lem," says Sheriff Jett recognizing the boy of Hezekiah Ferris from upper Meddlesome.

"He-un done in my pap." Whisper says it. Whisper timed and emitted with just enough force to reach the sheriff's ears.

"Who's *he-un*?"

"Friar Valentine. Friar kilt my pap!"

"When?"

"This mawnin'. Three-four hours ago."

"Huh. Where Friar kill your pap?"

"On trail. Near we-uns' place. My pap a-comin' to co'te, an' Friar kilt he-un."

"Ambush him?"

"Bullet-ball come from beech-woods an' lay daown my pap."

"You see the Friar?"

"Hain't seed Friar. Jes' seed Friar's hat."

The sheriff reaches over to pat the rump of his white horse. Saul Bankey, the jailer, pulls at his beard, shakes his head and looks at his Waterbury watch. He leaves the stable abruptly, closing the door after him.

"Was this shooting after or before the rest of the Valentines started for town?" asks the sheriff.

"Valentines all gone when bullet-ball kilt my pap. We-uns seed all Valentines and thar kin a-mulin' hit down Meddlesome for co'te hyar. One-two hours pass then me an' my pap go down trail an' bullet-ball lay him low."

"Was your pappy going to testify against any of the Valentines? Was he a witness against them? Did he have any trouble lately with any of them?"

"My pap knowed somethin'."

"What'd he know?"

"Dunno, lessen hit's 'bout Friar. My pap say to we-uns 'at he know all

'bout Friar, but won' tell. My pap afeared we-uns fergit an' tell. My pap scairt we-uns git kilt fer informin'. He say he a-goin' lay Friar low some day. Maybe he-un pop off Friar. I dunno."

The sheriff pats the rump of his white horse and rubs his legs. He starts to speak but suddenly there comes the ringing of a bell. The bell rings for three minutes—the call to a mountain court session. When it stops, the silence in the stable thickens. The county peace officer and the Ferris boy stand silent for a while.

"You'd better stay here for a bit, Lem," says the sheriff at last. And he throws saddle and bridle on the white horse and leads him out doors. He closes the stable door and mounts.

The white horse, Blue-Grass thoroughbred, grows restless, paws the earth, shakes his head, shoots forward when given the rein. But Jett checks him as they go down the drive past the court-house. At the edge of muddy Main Street he pulls the horse to a stop and looks around. The porticoes are empty. The hogs and cows and chickens have the street to themselves. Mules dream strange beast dreams at the hitching-racks.

From the court-room comes the voice of Saul Bankey calling the court to order. Jett sees the forms of hillmen by the windows, sees that they are looking down at him. He gives his horse the rein, turns him to the left, in the opposite direction of Meddlesome Creek, away from the creek-bed-road that leads to the Valentine country.

Out of sight of the town the sheriff keeps going for a half-mile. He turns

into a woods, dismounts, and creeping on his hands and knees works his way back where he can see the town. Nobody in sight. Nobody following. Returning to his horse he mounts again and turns sharply to the right, following a trail that leads up to a ridge-top. He checks his horse again to look around and listen, then moves on down the opposite side of the ridge. Leaving the trail at a creek-branch he rides his horse through the shallow waters, then after a while ascends the steep slope of a hill, a thickly forested slope without a trail. He's going with the sun now, going on a bee-line for Meddlesome, yet he's miles from Leeston, the county-seat.



As the sheriff rides he ponders. An old wonder returns to his mind, an old mystery. He makes a mind picture of a hat, a hat got from God knows where, brought over maybe from across the seas, maybe taken from the head of an enemy of the Valentines way back in time. It's been described to the sheriff many times, this symbol of death. Described by men, women and children at various times. Folks have seen it through the gathering haze of a mountain evening, and sometimes the beard under the hat, but never the whole face, never the eyes of the Friar himself. Folks have moved away from the district after seeing the beard and the hat, left Meddlesome for the more peaceful Duck-head district.

With a rush, like the approach of a battalion, as if out of every bush and from behind every beech-tree on the slope, the Valentines, the O'Gowds and the Taneys seem to assemble be-

fore the sheriff's mind's eye. He can account for them all—all are in Leeston this court day, leaving their domain empty but for the bed-ridden old woman, Ram and the Friar.

Reaching the summit of a hill the sheriff stops his white horse once more to look around and listen. Down below is Meddlesome. At moments he can hear the faint humming of the waters and their soft splashing around boulders. He can hear the grunts of wild hogs as they root under the beech-trees, but he can't hear footfalls of men or mules. Everybody's in town, in Leeston. Court has depleted the hills of men, women and children. The curious have piled on mules or hooped it to witness the autumn—the bloody—term.

Jett avoids the trail that leads down directly to Meddlesome. He guides his horse through the perpendicular forest. The Blue-Grass animal slides down on his haunches sometimes, squeezes in between saplings, balks at entering the green-brier, plows through tough laurel and rhododendron. The sheriff knows it's more prudent to make a lot of noise than a little, wiser to let his horse crash through like a wandering cow than make a single stumble at the wrong time. After a while he comes to a laurel pocket and dismounting ties his horse to a young sycamore, just above the humming waters, then steps cautiously through the undergrowth.

When he reaches the bank of Meddlesome he stands listening for a minute, then he crosses the creek on some rocks thrown there by hillmen, a makeshift ford. On the other side he finds the trail mouth, enters it,

ascends the slope for a hundred yards and stops again. Everything seems unusually silent. Nobody traveling the creek-bed road. There is no wind. A still mountain day. A cloudless sky. The silence tightens to a point where Jett feels that it must snap. A wild hog should grunt, a roaming cow tear through the tough laurel, a mountaineer call from somewhere.

The peace officer's instinct, bared to the tight silence, seems suddenly to feel a presence. The thing that reaches out and with the lightness of a breath touches the key of his being, remains in spite of his effort to shake it off. The feeling grows. In this land where so much is under cover, where the sons of men are artists at pantomime, Jett has developed an instinct surer than his senses.

Satisfied now that he is followed, watched from somewhere, he is too experienced, too familiar with the tactics of mountaineers to show that he's conscious of being spied upon. And he's not foolish enough to stand still as if he's listening. So, he moves on, up the trail, to the hilltop, up to the bald which is windswept and bare, never looking back, never seeming to search the surroundings with his eyes.

Reaching the bald top of the hill he takes a stogy from his pocket, lights it and takes quick glances at his surroundings. Down the other side the hill is a perpendicular slope, steeper than the side he just ascended. At his left, after a slight depression in the ridge, there is a rise for half a mile, until the ridge dips to the Valentine cove. Five hundred feet below in the same direction lies the mouth of the trail that dips down

to the Ferris cabin where Hezekiah lies dead.

To walk ahead down the ridge and across the boundary of the Valentine land would be suicide. Yet, he can't remain where he is any longer with that presence, that unseen spy seeing every move. He leisurely walks down the other side of the bald, hoping to come to some cover where he can turn the tables, where he himself will be the spy. He knows that no mountaineer in his right mind will follow him over the bare, windswept, exposed hilltop.

When the foliage begins to thicken his eyes fly here and there, searching for a spot to hide in. Twenty feet below him on his right he sees a deep depression covered or topped with laurel and laced with greenbrier, a natural ambush. This bit of cover, within close range of the trail, and having a view of the slope above and below invites him. A logical hiding place for the hunter and hunted.

"Whoever's following me would think I'm in there," says Jett to himself. "That's the reason I'm going to pass it by. It's too damn strong in its bid for a man."

Beyond it a few feet there's a small clump of laurel, shaded by a low-hanging cucumber-tree, and creeping toward it he draws his body in. Lies flat on the ground. He can see from his side of the depression, that men and perhaps animals have made a sort of tunnel into it. In the very heart of the ambush it's dark. "I'll bet that hiding-place I'm looking at is one of the outposts of the Valentines," says Jett to himself. "I'll bet this is where they popped off all those O'Gowds they were at war with ten years ago. When the

O'Gowds ventured over to Meddlesome from their ridge yonder."



It's plain to the sheriff that whoever is following him must go down the other side of the ridge a long distance before crossing the rim: he must go where the ridge dips and is forested and unexposed. And once over he must work his way back through the fastness of Jett's side of the slope. This will take time. And when he's back, whoever is following him, will spend plenty of time crawling inch by inch through the cover before he will enter the trail. Jett prepares to wait, knowing mountain caution and mountain patience.

The sheriff keeps up a slow but steady inspection of the fringe of brush and forest across the trail, accounts for every formation. Hours pass. Then suddenly he sees a face, half hidden under a low-crowned, faded, black hat, peering over a fringe of tight laurel. Over a hundred feet away from him, darkened by shadows, the face is dim. But its outlines, its beard and its strange uncanny pallor become plainer as minutes tick away and as the whole forested slope stretches its silence to drum-tightness.

He sees the head slowly disappear, lower until the top of the crown of the hat is only visible, sees the hat move along the top of the laurel and the face slowly appear again.

The sheriff's next move is checked. Drawing his automatic from its holster he aims it under cover of the laurel, looks down the short barrel that is on a line with the Friar's body. But an old emotion seizes him. Sniping is against the grain. He's about to bushwhack. Neither the law nor

the reversed code, neither the status of the outlaw nor the edict of the State that backs him can curl his forefinger for the shot.

To get the Friar out of his hiding-place is the idea now in his mind. An inspiration springs from it. With his jack-knife he cuts the fleshy part of his hand, drawing enough blood to smear his face, enough blood to make his face glow and seem to shine with gore. Then he fires at a point near the Friar, throws himself to the right and sees a return bullet flick off the laurel leaves where he'd been lying. With feigned helplessness he allows his body to roll down the slope and settle grotesquely against a sapling, the gun dropping from his hand, his face livid against the green of the forest.

A few minutes pass while the peace officer keeps his eyes on the laurel fringe and bears the discomfort of his position against the sapling. A figure pushes its way through the scrub toward him. Not the Friar, but Ram: Ram Valentine—the nephew of the Friar and boy of Noah—carrying a long hog-rifle and pointing its muzzle directly at the sheriff's head. Ram Valentine, who seems to have degenerated all at once, coming toward Jett as an enemy, forgetful of the times when Jett got the judge to let him off for his misdeeds. Ram who's weaker than the will of his people, who weakly follows their lawless commands.

When Ram stands within three feet of Jett, the sheriff through eyes closed to slits, sees the boy of Noah glance at the automatic on the ground, sees him slowly release his left hand from the stock of the hog-rifle, sees him slowly bend

his knees and reach for the automatic.

A wandering cow disturbs the undergrowth above them and draws Ram's eyes. Enough time for the sheriff to kick the hog-rifle out of the young hillman's hand, grab his legs and throw him.

While they hold to each other like bears for several minutes and breathe heavily, thoughts fly through the sheriff's mind. He likes the warfare better than he did playing possum. A move by him, the batting of an eyelash when he flung his body as if dead against the sapling would have brought a charge from that old hog-rifle in the hands of Ram that would have dropped a cow let alone a man. The thing to do now is to get his handcuffs out of his pocket. But he'll have to knock Ram senseless first. For a minute he sees relief, sees victory if he can put the bracelets on this hillman. Then suddenly he thinks of the Friar. Where is the Friar? Why doesn't he come to help Ram? What's the matter with tradition? Is the Friar only waiting for a clear shot to wipe out Jett? When he gets the handcuffs on Ram, if he can get them on, how's he going to march his prisoner in front of all the ambushes between this spot and Leeston? Jett knows better than to depend on a guess as to what's in a hillman's mind.

But there goes that knee of Ram's back again to drive at the peace officer's vitals. With all the strength he can muster the sheriff bends one of Ram's arms under his back and reaches in his pocket for the bracelets. In that second of torture, while the face of the hillman pales from pain Jett is clutched with the emo-

tion of seeing spunk and bravery and age-old pride of spirit carried to the limit. Ram would faint from the torture before he'd give in; he'd die before he'd squeal. There's something about torturing a brave man who won't ask for quarter that is sickening to the sheriff. He forgets that the Friar must be around, forgets all but the desire to shackle Ram so he won't have to keep on torturing him.

He gets one of the bracelets on Ram's left wrist, then, feels himself tossed. He rolls completely over before he gathers himself and beats Ram to the automatic. But there's the long-barreled hog-rifle nearby and in springing for it he loses sight of Ram who plunges ahead into the laurel. Jett fires at a movement in the brush beyond the edge of the fringe and starts to follow. But again he checks himself. Puzzled by the fact that the Friar hasn't shown himself once. Did he kill the Friar instead of wounding him in the leg or foot as he intended doing?

Step by step he goes forward. His eyes have that wide expanse of vision that seems to be peculiar to the mountaineer. Though he looks straight ahead the corners of his eyes would be flicked by the slightest movement for a hundred yards either up or down the slope. At the edge of the fringe, almost at the point where the Friar stuck his head over the laurel Jett stops again, somewhat dazed over his being alive. In a minute he steps through the laurel, looking for signs, half expecting to see the cold body of Friar Valentine. He spends some time looking around, then moves on farther. His trained eye suddenly sees a red blotch on a

leaf, and beyond it the shrub is flattened down, dragged here and there. And more blood on a loose leaf that looks as though it had been pulled off its stem by adhesion and let go again. "A leaf stuck to his blood and was torn off again," says Jett to himself. "But whose blood? Ram's or the Friar's?"

The peace officer suspects that he'd have had the boy of Noah, the nephew of the Friar; he'd have Ram Valentine now if he hadn't gone soft all at once. If he'd have knocked him senseless instead of trying to put on the bracelets. His past mistakes, his moment of softness, bring a reaction of hard determination. Abruptly he climbs to the wind-swept ridge-top and goes down it toward the depression that marks the Valentine cove below. Suddenly he finds more blood marks and as he stands listening he is confronted with another obstacle, the noise of the creek-branch tumbling down the ridge side, the cover of sound that blots out all other sounds in the cove below.



The roar which blots out the sound of the passage of the enemy down the side of the cup-like cove below will blot out the sheriff's passing also. He lowers himself by following a gully made by countless mountain storms, clings to exposed roots of trees, digs in his heels, unmindful of the rolling of rocks and stones which he sees in their flight but cannot hear above the din of tumbling waters.

At last he reaches the level of the cove. From behind thick holly and greenbrier he sees the five cabins of the Valentines and their kin, browned cabins with tumbling chimneys. The cabins are built in a rough circle.

They are dead-looking at this time. No smoke coming from the chimneys. A tethered cow that has cropped all the tough grass within the radius of her reach is eating the bark off a tree. A lone hog wanders about. Jett recalls the last time he hid here. When, under cover of a black night he saw Noah, his woman, his boy Ram, through the open door, sitting before their coal fire, and the old bed-ridden maw of Noah lying in bed—all silent and unmoving. But no sign of the Friar.

"I hope that Valentine horde will be held as witnesses until evening," Jett tells himself. "I don't think they know or feel that I'm here. But sometimes court adjourns early on the first day. If the Valentines are released by the judge for the day I'm going to be in a trap. I'm done for if their damn clairvoyance works in their minds while they wait to testify in that court-room."

Jett sees the space under the cabin nearest to him and suddenly makes a run for it. He drops to the ground and crawls under the stanchion floor. Dragging himself toward the front of the cabin he peers out, sees nothing and crawls out. Hugging the wall he approaches the open doorway. Shoving his automatic ahead of him he enters. In the dimness he makes out an old cherry bed, two hickory-bark chairs, a chest and some old duds hanging from wall-pegs. He returns to the door, makes another quick survey of the surroundings and runs to the wall of the second cabin. Again he follows the automatic around the door jamb and into the cabin. No movement, no life here either. Old beds, chairs, pegs and saddle-bags over again.

The dash to the third cabin, soundless under the rush of waters, is made. In this one he sees a form lying in a bed, completely covered. An old shawl covering the head. Lying just as she's been lying for ten years or more, face down, unmoving. The eighty year old mother of Noah and the Friar, breathes heavily. "Sleeping away her last days," says Jett to himself.

Looking around the dim cabin interior Jett sees a dress hanging from a peg on the wall near the bed. An old velvet dress, colorless now and mildewed through the ravages of time; a threadbare, torn garment, old like its owner, shapeless like its owner, hanging there as if dreaming of its heyday in the long past.

"Eighty years old," thinks the sheriff. "Four times eighty are three hundred and twenty. Three hundred and twenty seasons this old woman has seen change. Thirty thousand sun-ups! Thirty thousand times she's watched the old fire-ball go over the hill. I wouldn't want to see all she's seen in her life."



The peace officer continues standing over the bed for a few minutes, thinking maybe she'll feel his presence. Thinking maybe her acute senses will tell her an enemy's near. Her labored breathing goes on. The shawl around her head rises and falls.

"If I woke her up she wouldn't tell me anything," says Jett to himself. "Thirty thousand times is enough to see the fire-ball go over the hill and she's tired of watching it. What's the use of making her lie? What's the use trying to make her betray?"

He turns and looks out the doorway, takes a step and stops. Some-

thing whipped his eye when he turned. A round, disk-like mark lingers before his eyes and he faces the bed again to see a spot on the cover, a dark, round spot. "Mark of an old war maybe," he tells himself. "May have been there since before I was born."

Bending over the bed he touches it, feels the mark that's been there maybe since before he was born. But it's sticky to the touch; the cover lifts with his finger as he draws it away. He looks at the stain on his finger while his body draws to a tenseness.

Misplaced pity fires his blood. Surging through Jett, rising to his cheeks that begin to burn with a cherry glow, the heat of a humility makes him seize the cover on the bed and throw it back and jerk the shawl from the head.

Not the old woman, but Ram! Ram, the boy of Noah, the nephew of the Friar! Ram, pale as ivory, his hair full of burs and twig-ends, his shirt torn, his arms streaked by the gaffing of greenbrier as he dragged himself home through the brush. Ram, breathing weakly while the life of him streams slowly from a wound in the groin.

Jett tears a strip from the cover and binds the wound, twists the bandage tight, shuts in the life that wants to leave the body. The sheriff has to learn some things: he has to bring to light some things that lie way down in Ram before the hill-man's body is laid down. Buried deep down in Ram lie the secrets of withering mountain nights. He must know where the Friar is. "I can't afford to let him die now," says the sheriff to himself. "I've got to keep

in the life." He gives another twist to the bandage.

"I never thought you'd ambush a man," says the sheriff bending over the form of Ram. "Never thought you'd do a thing like pop off Old Man Ferris; thought that damn trait had been left out of you."

The gleam from the handcuffs locked to one of Ram's wrists fills the peace officer's eyes. He raises the hand to unlock them. The hand drops to the bed limply. He puts the bracelets in his pocket, bites the end off a stogy, straightens up, folds his arms and stares down at the unmoving form of the hillman.

Ram Valentine's breathing is fitful, uneven, labored. Sometimes he opens his eyes to slits, sometimes his lips part slightly. His face tapped of its blood is white behind his short beard.



Jett looks at his watch which says one o'clock. He knows that if court adjourns early, the horde will return home, the horde will sneak in under cover of the creek branch's roar; somewhere the Valentines will see the signs of his being in their cove, somewhere they'll read the alarm.

"Where's the old woman. Where's your grandmaw?" asks the sheriff.

A wave seems to traverse Ram's body. All the strength left in him seems to be flowing to his lips; he seems to be gathering his strength to answer.

"Huh," says the sheriff. "You wouldn't listen to me when I told you you'd better change your way of living, when I told you you ought to go away where you could live decent. I got you off three times with the judge because I thought there was a

spark of manhood in you. You told me you'd pay me back if I got you another chance and this is the way you've done it? Huh. Where's your grandmaw?"

The gathering forces travel the hillman's body again. His mouth opens. "Daid," is the single utterance that comes from it, lifted from his throat by a single weak breath.

The sheriff takes the stogy from his mouth and bites his lips. Watches the hillman's chest rise and fall and thinks that the word must have been almost too heavy for the hillman to get out. "Saying one word almost took him off," Jett tells himself. "I ought to have asked him where the Friar is. If I make him answer me now—make him tell me about the Friar, it may end him. I've been bungling again."

Jett's eyes notice the old velvet dress again hanging from the peg near the bed. "No wonder I couldn't find Ram," he says to himself. "No wonder I've searched the hills and all the rat-houses and couldn't find him. That night I looked in through this doorway and saw these people sitting around the coal fire, saw Noah, his woman, his boys and his girls toasting their shins in silence, and thought I saw the form of their grandmaw in bed I was looking at Ram and didn't know it. Ram in bed there with his head tied up in her old shawl. God-amighty! She may have laid her body down years ago. Her old shawl has covered heads that should have swung from the gallows. These Valentines must have gone clear back to Shakspeare for their inspirations.

"I know no more now than I did before," says Jett to himself. "And I

don't dare ask him about the Friar now. I ought to have asked him in the first place. Damn me."

Again he chews the end of his stogy and watches Ram whose heavy labored breathing has subsided a little. No tax on the body or mind, no drain on his remaining strength, Ram's chest settles to its uneven, fitful, labored rise and fall.

The peace officer looks at the bandage again, gives it another twist. Straightens up then stoops to peer under the beds and in the back corners of the room. A mouthful of whisky would help the man on the bed. A bit of corn liquor might help out—another word or two. No jug in the back of the room and Jett moves toward the front, peers into a shadow behind the open door. Suddenly his hands go up in the air. His eyes look along the barrel of a long hog-rifle, the muzzle of which rests on the rung of a hickory-bark chair and is on a line with his chest.

The peace officer sees a bearded face, dimmed by the shadows, sees the outline of the gun-stock fade as it enters a pile of old clothes. Friar Valentine, all but his head hidden under riffraff, lying comfortably in the dark corner, his eyes covered by the brim of his low-crowned hat. The Friar taking it easy as he covers the sheriff; his grim sinister face unconscious of the irony in the scene, the irony that makes Jett's mouth go slightly crooked.

Flicked by forms moving close to the ground outside, Jett's eyes turn slightly in his head to see three hounds stepping lazily toward the cabins; two potlickers with tight bellies and a half-breed Walker dog

dragging their feet lazily, coming home ahead of the Valentines. Vanguard of the horde.

"The Valentines are coming," the sheriff tells himself. "A mountaineer's dogs never get very far ahead. I can't hear their mules under this din the creek-branch is making, but they're coming and I'm done for."

Jett wonders why the Friar didn't kill him up there in the laurel, why the last scene dragged, why the climax was hung up. He wonders what lies behind the dark plan of this Friar holding him here for the horde. He wonders about the "whys" and his wondering brings an anger that turns fear aside.

"Well," he says to the shadowed face in the corner that is silent and unmoving in its ego, "you win. So get up. Stand me up against something and shoot me in the back if it's so damn hard for you to pull the trigger while I look on."

One of the potlicker dogs raises his head, sniffs the air and bays. The quivering notes rise above the din of the branch.

Jett hears the old cherry bedstead back of him creak.

"Friar's daid," Ram Valentine shouts huskily across the suspense-laden cabin room to the sheriff.

The peace officer lowers his arms. No movement from the man behind the long, hog-gun. Grabbing the muzzle he flings the gun to the floor back of him. He kicks over the chair and reaches back into the shadows; throws aside the pile of old clothes and emerges from the dark corner with a head, a wooden head fastened on to a short pole—an effigy of the Friar cut from a chestnut block. Tacked to its smooth cranium a fad-

ed, low-crowned hat, glued to its face a beard cut from God-knows-whom.

"A better plot than any one could dream of," Jett says to himself, looking at the mask that seems to return the stare with malice. "I'll burn him if I ever get him to the court-house yard."

The potlicker dog bays again. Jett turns quickly. "I knew there was a spark of manhood in you," he says as he walks swiftly over to the form on the bed.

Ram Valentine's answer is in his glassy stare.

Jett looks out the door and sees the hounds returning to the creek-bed road, wagging their tails lazily, going back, after second thought, to meet and lead home their own.

Removing his hat the peace officer pulls the cover slowly up, putting it over Ram Valentine's head. He goes to the door swiftly and leaps out. Carrying the effigy of the Friar over his shoulder he runs to gain the fringe of forest, and climbs the perpendicular side of the cove. Half-way up to the rim he stops and looks down. Over the tops of the trees he sees the Valentines slide off their mules and move in long, hurried, mountain strides toward their cabin doors.

The peace officer rests the wooden cranium of the Friar on the ground, takes off his hat and looks up at the blazing sun.

"I knew it was in you, Ram," he says. "But—I didn't look for it to—flame so fine!"

STUDIO

KEITH STERLING

Little Madonna hanging on the wall,
Blue-robed and reverent, with gothic hands
Clasped in ecstatic tenderness, the tall
Pale candles burn before you in their stands.

Opposite: Buddha, where you squat serene,
Hands—thumb to thumb—laid flat, you show no sign
Of restlessness beneath your ivory sheen
Of contemplation in the lacquered shrine.

Outside, your various worshipers revile
Each other frenziedly; with ugly mien
Jealous and scowling to and fro they run.

Within this quiet room you sit and smile
Like friends who fear no silences between
Themselves, while each sits dreaming in the sun.

AMERICA AND EUROPE

Yesterday's Influence on To-Day

ALDOUS HUXLEY

A STUDY of the *effect* of the Past on the Present. Strange things (it may seem a paradox, but it is nevertheless the truth) are easier to understand than those we know too well. The nearer, the more everyday and familiar an event is, the greater the difficulty we find in comprehending it or even realizing that it *is* an event—that it actually takes place. Habit causes us to react automatically to the things which surround us. Confronted by the unknown, we are forced to think; hence our passionate dislike of unfamiliar things; but in the face of the known, we are hardly better than machines. When we live habitually, we function with the greatest practical efficiency, the least possible waste of energy; but we are scarcely more aware of the world in which we are living and acting than the automobile is aware of the landscape through which it is being driven. For the conscious, thinking part of us, habit abolishes the environment by making it too familiar. We must make a great mental effort if we would analyze and comprehend the things we take for granted. The people who do not take for granted, who are not content merely to live in the familiar world, but want to understand it too,

are called philosophers and men of science. They are not numerous. Most of us are content to live in our immediate surroundings as fishes live in water, taking it for granted that our particular mode of existence is the only possible mode, and so completely familiar with the element which we inhabit, that we are not conscious of its nature and hardly, even, of its bare existence.

To travel is to change one's element. Passing from a liquid into a windy world, the most unscientifically minded of fish is suddenly enabled to criticize and comprehend the water which, as an inhabitant, it had ignored. And the traveler discovers in foreign countries many obvious facts about his own—facts which he had overlooked while at home, because they were too close to him. Thus, it was while journeying in India that I came to understand the inward nature of our European civilization. Talking with orientals whose mentality was pre-scientific, I realized, as never before, the significance of that scientific outlook which has become the world-view of the contemporary West. And it was in America—in the country which, for all practical purposes, has no history—that I discovered the importance to us Europeans of

our past and the extent to which (though we may be quite unaware of it) it influences our thoughts and actions in the present.

In externals, life on one side of the Atlantic looks very much like life on the other. Western Europe is as completely and intensively industrialized as America. Huge populations of property-less wage-earners inhabit the cities of each continent. In both, business is the principal occupation of the better-educated classes, and the great industrialists and financiers wield almost, if not quite, as much political power in England, France and Germany as they do in the United States. True, there is one important difference. America being a very large and opulent continent inhabited by a relatively very small population, is much richer than Europe; there is still, in America, more than enough to go round. Europe, on the other hand, is overcrowded, as America will begin to be some hundred years hence when the present population has doubled or trebled itself. Prosperity creates self-satisfaction and optimism; and contemporary America is as full of these spiritual commodities as was middle-class England in the palmy days of her industrial supremacy, between 1840 and 1900. But though the level of prosperity is lower in Europe than in America, the courses of European wealth, such as it is, are the same as those of American wealth, and the externals of life in the great industrial and commercial centers of both continents is very similar. And yet, in spite of this external similarity, Europe and America remain profoundly foreign to one

another. The European's outlook, his standards, his point of view are, in many important respects, quite unlike the American's. So much so, that an Englishman will often find it easier to understand the mentality of an Austrian or a Frenchman than that of an American. The American, it is true, speaks his language; but the Frenchman and the Austrian are Europeans and, inhabiting the same continent, share the Englishman's historical background. Their views about man and things will be closer to his than those of the American, who comes from a country that has not known the Middle Ages. St. Francis of Assisi and the Holy Roman Empire, Scholastic Philosophy, the Guilds, the Feudal System seem remote enough. Nevertheless they continue to exercise their influence on modern Europe. A visit to America makes one realize how great that influence is, how profoundly our contemporary ideas about many of the most important aspects of social life are modified by the past. I propose in this article to give one or two of the most striking examples of the way in which history has conditioned the European point of view, making it different from the American.

~*~

Business being the main activity of the educated classes in both continents, one would expect the attitude toward it to be the same in Europe as in America. And yet, for purely historical reasons, it is not. In America it is true to say business is accepted whole-heartedly as an end in itself, to which the highest activities of the best men can be worthily devoted. I have read pro-

nouncements by American clergymen who affirmed, in so many words, that "Business is Religion." And it has become a commonplace of the modern American sermon, newspaper article and advertisement that the business man is doing service of the highest kind. "Service" is the modern American business man's favorite word. It was also one of the favorite words of the Founder of Christianity and of his most remarkable medieval disciple, St. Francis of Assisi. But the same word does not always mean the same thing. When we demand the precise signification of the eminently Christian word "service," as used by successful business men, we find that it means roughly this: Selling the public what it wants (or what it can be persuaded by means of advertising to imagine it wants) in an efficient way and with the maximum profit compatible with legal standards of honesty. Would Christ or St. Francis have defined it in the same way? One wonders. In any case, that is the definition of "service" current in business circles. The word hallows the thing. The aura of service shines round the American business man like a halo.

In Europe the business man finds it more difficult to persuade his fellows that his is a noble existence of perpetual service and he himself the highest of human types. For Europe is still haunted, in spite of all the changes of the last seven hundred years by the ghost of the medieval tradition. In the eyes of the medieval church, avarice or the love of money, was one of the deadly sins. Nor was the church satisfied with deploring abstractly and on

principle the activities of those who tried to get rich quick. Religious condemnation was reflected in legal practice by a host of enactments limiting and controlling the activities of financiers, manufacturers and middlemen. Interest, when it was permitted at all, might not exceed a certain moderate rate; speculative profits were regarded as illegal; monopolists were prosecuted on earth as well as condemned to eternal torments in another world; the man who made a "corner" in necessary commodities was not only damned, but fined also and imprisoned. The medieval state, which was for all practical purposes a manifestation of the medieval church, thought it a part of its duty to curb men's lust for money, just as it curbed and regulated their sexual instincts and their passions of violence and revenge.

By the beginning of the eighteenth century the churches had ceased to regard economics as a province of human activity in which they were entitled to interfere. But their previous protests against avarice remained on record, and the tradition that they had once interfered in economic matters still lingered, even though they interfered no longer. States shortly followed the example of the churches and left their subjects to settle their economic problems among themselves—with what appalling results any student of the early history of industrialism is familiar. The political economists of the new generation did not condemn the lust for money, as their religiously minded predecessors had done, and instead of trying to control and regulate it, demanded that it

should be allowed to express itself freely, without interference by religion or law. For the economist, avarice is simply the motive power that works the economic machine, in precisely the same way that water is the motive power that works the mill. The faster the mill wheel turns, the better. If the flow of water is interfered with, the wheel will turn more slowly. Therefore there must be no interference. The modern state accepts this conception with but few modifications, interfering only to prevent the weak from being too brutally exploited by avaricious employers and the consuming public from being too unconscionably swindled by avaricious producers and middlemen. It continues, like its medieval predecessor, to condemn the intemperate manifestations of sexuality and rage, but leaves the avaricious man almost entirely free to satisfy his lust for money and even rewards him, when successful and rich, with honors and political power.

This state of things holds good on both sides of the Atlantic. But whereas it would be true to say that, in America, the attitude of the economists and of the state is substantially the attitude of the public at large, in Europe, on the contrary, public opinion is not quite so wholeheartedly convinced of the moral excellence of business and business men. The influence of the Middle Ages still faintly persists in the Old World. It is now exactly seven hundred years since St. Francis of Assisi sang the praises of the Lady Poverty and devoted himself to her service. But something of his spirit survives even to-day, so that industrialism

and business, though triumphant in fact, do not in Europe receive the homage to which their predominance seems to entitle them. They rule the external world, but not men's minds. Poverty, particularly if it is poverty for the sake of some idea, is still rather respectable in Europe and the enriched business man is not looked up to as the highest type of citizen. Indeed, the aristocratic tradition unites itself with the religious tradition of the Middle Ages and causes him actually to be disparaged and looked down upon, even while he is envied and obeyed. Of the aristocratic tradition I shall have more to say later. Meanwhile, I should like to point out another result of the medieval ethico-religious tradition. Europe is notoriously far more tolerant of the class of ideas labeled "socialistic" than is America, where they are looked upon with horror, as positively criminal. The rich European business man probably objects to socialism quite as strongly as does his brother on the opposite side of the Atlantic; but public opinion at large is not so violently opposed to it as it is in America. Indeed, the ideas of socialism seem familiar and almost obvious to minds on which the religious teaching of the Middle Ages still exerts a certain influence. Politically medieval Europe was a collection of despotisms, large and small. But its economic system, based on the assumption that the love of money is a sin which must be repressed and controlled like any other undesirable natural proclivity, bore a close resemblance to modern state socialism. Human beings are only frightened by the

things they do not know. Obscurely and almost unconsciously, the European is familiar with the ideas of socialism, because they are to a great extent implicit in the religious beliefs (still predominantly medieval) with which he has been brought up. The American public, cut off from the Middle Ages and unfamiliar with these ideas, finds them stupid, wicked and worthy of violent suppression.



Another heritage from the Middle Ages—a heritage which conditions the modern European outlook and makes it different from the American—is the tradition of aristocracy. Hereditary aristocracies have ceased in almost all European countries to possess special privileges and exercise special political powers. In England, it is true, the Second Chamber still consists of hereditary peers. Certain political theorists object to these legislators, whose only qualifications to be law-givers is that they happen to have been born with a title. Theoretically, they may be objectionable: but I cannot see that they do their business any worse than an assembly consisting of an equal number of men chosen at random, as a jury, would do it. And as a democrat, I for one would always prefer the present House of Lords to any specially elected or nominated assembly of financiers, industrialists, retired colonial governors, superannuated experts in various branches of applied science and so forth, whose training and habits of mind would tend to make them far more meddlesome and tyrannous than the sporting country gentlemen who form the majority of the English

Second Chamber to-day. But that is by the way. The English aristocracy still possesses political power, but vastly less than it did; and its special privileges have long since been abolished. It is no longer an oppressive ruling class. The same applies to other parts of Europe. In all countries the hereditary aristocracy is only the ghost of what it was. And yet its influence on contemporary social life and on current ideas is still important. How important, a European only realizes when he has visited a country which has not known the Middle Ages and where the idea of hereditary aristocracy is not only foreign but even traditionally odious.

In a country where there is no hereditary aristocracy the leaders of society are the rich. This is not the case in countries where aristocracy survives as a social and political institution or even as a mere tradition. Wealth, it is true, can almost always force its way into an aristocratic clique; but in no circumstances is it equivalent to aristocracy. Wealth as such does not carry, in an aristocratic country, the prestige which belongs to it in a society founded on a different principle. Money, in an aristocratically organized society, can command and control men's actions (as it does in other societies), but not their thoughts; one cannot buy the respect which an ancient name evokes in the minds of those who have been brought up in the aristocratic tradition, nor its romantic glamour. The enriched business man may buy his way into the exclusive world of hereditary aristocracy; but he will be secretly, or even openly, looked

down upon by those whose company he frequents. Commerce was regarded as degrading in the Middle Ages; an aristocrat did not buy and sell. The tradition dies hard.



Snobbery for snobbery, there is not much to choose between a snobbery whose object is the titled and a snobbery which adores the very rich. They are equally comic. But snobbery is not the only fruit of traditional aristocracy. It has other by-products of a much more interesting nature. The most important of these by-products is the more or less complete indifference to public opinion which characterizes the members of a hereditary aristocracy. It is obvious that, if you are born with a certain acknowledged social superiority, which is independent of material circumstances (for a poor aristocrat is still an aristocrat) and of which nothing can deprive you, you need not feel preoccupied about public opinion. "What will the neighbors say?" You do not care two pins what they say. What they say can do nothing to damage your position, which you hold by something approaching a divine right. This indifference to public opinion is the cause, among those who feel it, of a good deal of stupid and uncontrolled behavior. Liberty easily turns into license; it takes a strong man to be free with dignity. Rich and foolish young men who happen to be hereditary aristocrats probably behave worse, on the average, than rich and foolish young men whose fathers were manufacturers or bankers. If the aristocratic indifference to public opinion resulted only in this, it would hardly

be worth talking about. But not all aristocrats are foolish. A strong and intelligent man who feels himself to be above public opinion will not behave badly; he will behave independently, doing what he thinks right and rational, regardless of the prejudices of the crowd. Among the European aristocracies there is always to be found a good supply of unyielding independent characters, whose eccentricity, fostered by their sense of superiority, can sometimes attain almost to the pitch of madness.

In our too completely standardized world a leavening of strong-minded eccentrics is a most desirable thing; the tradition of hereditary aristocracy produces them almost automatically. The eccentric aristocrat does good by his example. Careless of public opinion himself, he gives to eccentricity a certain respectability which it cannot possess in countries where public opinion rules every class of society, even the richest, and where all departures from the average are looked on with grave suspicion. Moreover, aristocracies have always been the patrons of the arts and letters, even to a certain extent of the sciences. To play with new ideas has been one of the traditional sports, along with hunting and love-making, of the more intelligent of European aristocrats. They have protected otherwise defenseless innovators coming from the lower strata of society and have shielded them with their prestige and power from the rage of the ignorant and therefore conservative mob, to which all novelty, every attempt to change established prejudices, is abhorrent. Personal liberty—the liberty of every

man to act and think, within reasonable limits, as he likes—is undoubtedly greater in Europe than in America, where “liberty” means the liberty of the majority to impose its will on the minority and to make compulsory by law and, still more, by the force of public opinion, a general uniformity of habits, customs and beliefs. Legal and non-legal interference in the private lives of individuals has gone to extraordinary lengths in America! In many parts of the United States unfamiliar, and therefore unpopular,

ideas are persecuted with violence. People who hold unpopular beliefs and whose habits of life are different from those of the majority enjoy in Europe a degree of freedom which would never be accorded them in most of the States of America. This freedom is largely due, I believe, to the influence of the surviving hereditary aristocracies, to whom the idea of personal liberty is sacred and who therefore do their best to protect, not only their own, but even other people’s freedom to think and behave as they like.

THE DIVER AND THE SPONGE

HELEN SHOTWELL

A boy of living bronze, as beautiful
As gods of old, stood poised upon the raft
And stretched his muscles in the sun, and laughed;
Stripped with his fellows, then with lungs half full
Dived into the lagoon. A great wave spilled
Its crest of silver bubbles where he fell,
And far beneath, he heard it as a bell
Is heard through drifting snow. His way was filled
With iridescent shoals of fish, striped red
And gold. At last he thought he saw the glow,
Through sea-anemones, of coral where the slow
Sea-horses browse on fields of sponge. He sped
And grasped the prize. Then up and back to land
With bursting lungs. . . . You hold it in your hand.

EDUCATING THE WILL

Suggestion and Psychoanalysis

CHARLES BAUDOUIN

EACH human being's ruling interests proceed from impressions received in early years. If I had not been born at Nancy—if I had not, as a small child, been astonished by that extraordinary man Bernheim, who could make people burn their hands on a cold stove—I certainly should not have been impelled later to take up the study of suggestion, a study which I believe to be, in its turn, the best possible introduction to practical psychology. With regard to Nancy, Freud himself has written: "It was there that I received the strongest impressions concerning the possibility of powerful psychic processes which have remained hidden in human consciousness." It is indeed a fact that as the "heroic epoch" of the School of Nancy recedes into the past, and can be awarded its due place in history, our conviction increases that the School marked the starting-point of all the new psychology which has developed since, and which is founded upon the exploration of the "unconscious." Such exploration helps us to understand the human mind and to influence it, in a way that had never before been conceived or attempted.

The School of Nancy evolved rapidly, and always in the direction

of more psychological ideas, insisting ever more forcibly upon that which is taking place in the mind of the subject. In 1898 Dr. Paul Emile Lévy, Bernheim's first disciple, published a book with a preface by the master—"Radical Education of the Will"—which marked a new and important stage, for in it not only suggestion, but *autosuggestion*, was upheld. This was the beginning of the movement which was called later the New School of Nancy—a name that I had proposed in 1915. Of this school M. Coué was, in the first years of the twentieth century, the most famous representative and the greatest popularizer. He was indeed only a practitioner, and an experimental practitioner; but his practice was singularly instructive, and his experimentalism at times bordered on genius. I have sought to formulate a theory of his practice, and to discover the scientific basis of his experiments, and this was the origin of my book "Suggestion and Autosuggestion," whose main arguments and conclusions are fairly well known.

As the American public is, however, less well acquainted with my later works, I welcome the opportunity now offered to me of briefly outlining the evolution of my ideas

and experience since the publication of that first book. It is true that I find nothing to repudiate in the conception of suggestion that I then formulated, for I can in no way be held responsible for the ridiculous and deplorable vulgarizations which, under the borrowed name of *Coué-ism*, have been spread to some extent in all countries, and more in America than elsewhere. In the latter years of his life, Coué (who died in 1926) allowed himself to be persuaded by over-zealous and greedy managers to give courses of lectures which were beyond the strength of a man of his age—to the universal regret of his friends. The only result was, as they foresaw, to bring discredit upon the School of Nancy, and the most baneful effect of all was the uprising everywhere of self-styled “disciples,” whom the master had never seen, but who took upon themselves to teach in his name. Since his death the evil has increased, and it would be impossible to denounce this shameful propaganda too severely.

My own conception of suggestion, however, although unchanged in its broad outline, has been deepened and made more complete. From the first I have defined it as “an idea which is realized by means of an unconscious mechanism, whether the idea emanates from an operator or from the subject himself.” Also from the first I have emphasized the importance of the affective factor (emotion and so forth) in the realization of the idea, and have been led to recognize and study ever more closely these emotional and unconscious elements. Such a process of investigation is natural, and even

seems inevitable. It was followed by Freud; and whoever wishes to start afresh to-day, as he started in the past, from the point of view of the School of Nancy—a good enough itinerary—is led to repeat, *mutatis mutandis*, the same evolution. Year by year, through minute and patient observation, I have been able to verify ever more completely the exactitude of the essential facts of psychoanalysis. This is, in sum, the study, by the sole means available to us, of the emotional and unconscious life upon which our whole mental life is founded. That is to say that psychoanalysis itself is the basis of all psychology.



But the conceptions of the New School of Nancy on the one hand, and of psychoanalysis on the other hand, led me to a new problem. For psychoanalysis, while developing the study of suggestion, had never ceased to look upon it—as do most of the public—from the standpoint of Saltpetrière and the first School of Nancy: that is, as a phenomenon consisting essentially in the influence of one person upon another. It had confined its study of suggestion to the examination of such influence, which it had succeeded in illuminating greatly, thanks to the theory of “transference”—according to which the subject definitely obeys the operator “through love.”

But if we are to believe the New School of Nancy, and also Pierre Janet (who sees in “impulsion” the primitive form of suggestion), this old conception of suggestion as “influence” is quite insufficient. In truth, all human phenomena can be considered in their *social* and in

their *individual* aspects. Speech, for instance, is a social matter, when we study the laws of its evolution in different nations; but it becomes an individual matter when we study its development in the child. Inversely, a thing so essentially individual and psychological as a "sentiment," presents itself in a social aspect when we see it as the retention in the individual of the manners and customs of an epoch. Suggestion has long held, in human affairs, a strangely paradoxical position, for we have become accustomed to studying it only in its social aspect (as "influence"), and have neglected it in its individual and more strictly psychological aspect. It is to the credit of the New School of Nancy that it has striven to bridge the gap by insisting upon autosuggestion.

Recently it has been objected that the idea which is the starting-point of an "autosuggestion" must already have been received from somewhere—in a lecture, a conversation or from some exterior impression. That is obvious. But when from that it is sought to demonstrate that there is no such thing as autosuggestion, the demonstration fails. One could use similar reasoning with regard to any psychological fact, and seek to prove thereby that it is social in nature. One step further, and psychology would vanish into sociology! The "influence" with which such arguments try to identify suggestion certainly exists in suggestion, and everywhere else as well. That is why these old theories, to which it is sought to return, do not succeed in outlining clearly the idea of suggestion, but leave it entirely vague and general.

Let us recognize the fact that a subject realizes through suggestion not only ideas imposed from without, but also ideas derived from his own consciousness. In the latter case suggestion in every respect resembles an act of will, except that it does not involve effort (for efforts may even be made in a contrary direction), and that the mechanism of the realization is unconscious. A stammerer thinks that he is going to stammer, and he does so because he has feared it, just as he would stammer if he had willed to stammer; but he has not willed it—quite the contrary. Hence suggestion, when thus understood, is closely related to those matters which are really the proper study of psychoanalysis: the realizations of "unconscious desires," also slips of the tongue, absent-mindedness, dreams and so on. Suggestion appears to fill a special rôle among such matters.

Further, if we examine it more closely, we reach a still more remarkable conclusion. We find that suggestion takes its place exactly between the voluntary act, which is familiar to us, and the realization of unconscious desires, studied by psychoanalysis. We can define the relationship as follows:

(1) In the voluntary act (volition) we perceive the conscious realization of a previous conscious idea. Example: I wish to write this article, and I write it.

(2) In suggestion we perceive the unconscious realization of a previous conscious idea. Example: the sufferer from nervous asthma who expects an attack at the same time every evening, and has it as expected (autosuggestion); or inversely, the

cure obtained through an unconscious mechanism, in consequence of methodically sustaining the idea of being cured.

(3) In the facts made evident by psychoanalysis (called *sub-actions*) we perceive the unconscious realization of a previous unconscious idea. Example: an hysterical form of paralysis of the arm, which analysis interprets as the result of an unconscious desire to imitate some one who, through losing the use of the arm, has gained certain advantages and realized certain wishes.

Thus suggestion (in so far as we determine no longer to regard it superficially, from without, as merely a phenomenon of "influence," but to see it as it truly is, an intimate psychological process) takes its place midway between two kinds of phenomena far enough removed from one another. It bridges a gulf between them, and reestablishes continuity, and I have tried to demonstrate that this continuity is perfect. For example, between suggestion and sub-action there are intermediate cases where the previous idea presents a degree of intermediate consciousness, somewhere between full consciousness and the unconscious. Thus the idea suggested during hypnosis and realized after awaking, has ceased meanwhile to be conscious and is forgotten on awaking. In the same way, psychoanalysis can often show that an actual unconscious desire in an adult has previously been a conscious desire in childhood; but here again the idea in the meanwhile has passed from the conscious to the unconscious (repression), and it might be said that such a realization of desire

is a kind of post-dated autosuggestion.

It is desirable to add that these three kinds of phenomena constantly appear simultaneously, and even in one and the same action, and that in their combinations and conflicts unconscious elements play a great part. Experience of suggestion has made it plain that a voluntary effort directed against a previous suggestion usually becomes powerless or turns against itself (the law of reversed effort). To put it more generally, when one wills in one way, but unconscious desires are acting in another way, one is very likely to fail. Such willing is equivalent to "looking for work while praying that God will not let us find it," to quote a popular saying.



Now we have seen that the new conception of suggestion provides us with the possibility of a synthesis between superficial psychology and a deeper psychology. But this appears most clearly in psychological *practice*, for the methods of suggestion will henceforward take their place midway between the education of the will and the technique of psychoanalysis. All the great disciplines that act upon the human mind and influence its activities can be ranged in a continuous series, and if it is true that such a classification is necessary for the existence of a science, may we not claim that a science worthy of the name is here revealed? At the least, we can trace its outlines. This science that I call *psychagogy* (from the Greek *psyche*, soul, and *ago*, I lead) can be roughly defined as the science that acts upon the mind. It teaches us how to apply

psychology to the conduct of life and to moral therapeutics.

To each of the three forms of activity that we have recognized, there corresponds a group of different psychagogic methods. We may distinguish: (1) ethics and methods of educating the will; (2) methods of suggestion; (3) psychoanalytical methods. The three groups of methods are concerned, in the order given, with an ever-increasing participation of the unconscious mind. So that if we observe that these diverse methods act upon different regions of the mind, we shall recognize that there is no need to stress one group at the expense of the others. It is probable that each method is legitimate in its own domain, and it remains for psychagogy to define more clearly these respective domains. But this cannot be done without comparisons and collaborations between the different methods, as sincere as it is humanly possible to make them. I have never before so well understood that certain purely moral qualities, such as honesty, justice, tolerance, are true *principles* of method, no less indispensable in constructing a science than are Descartes's rules of logic.

The methods of mental therapeutics, ignored by the science of the universities, have been developed in separated, self-taught schools, which are often ignorant or suspicious of one another. Further, these different schools do not always speak the same language, and this aggravates misunderstandings. Finally, it must be admitted that savants are human. They are not always free from personal rivalries, vanity and quarrels concerning precedence.

Briefly, in the face of considerable obstacles, I succeeded in bringing about in 1924, at Geneva, the formation of an International Institute of Psychagogy and Psychotherapy, under the guidance of an honorary committee consisting of Alfred Adler of Vienna, Paul Bjerre of Sweden, Emile Coué of France, Hans Driesch of Leipzig, J. C. Flugel of London, Sigmund Freud of Vienna, Pierre Janet of Paris, C. G. Jung of Switzerland, Eugenio Rignano of Milan, M. B. Wycheslavitzeff of Moscow. This Institute has since then been affiliated with the permanent center of International Organizations at Geneva, and its work will be concerned with the development and application of the various psychagogic disciplines, and with the elaboration of a *practical philosophy of life founded upon scientific data*. Its formation had become urgent, owing to the disquieting progress of certain vulgar imitations, which threatened to ruin the credit of more serious efforts. It was very necessary that these latter be combined and organized to some extent.

The aim of the Institute is to work in a spirit of synthesis and reciprocal tolerance such as I have indicated. It seeks to bring about an interchange of views and ideas, and collaboration between those who represent different techniques, as well as between psychologists, doctors, teachers and ministers of religion; and all this outside any limitations of nationality or creed. The Institute provides courses of lectures, meetings, lessons and individual consultations; it possesses a library, and publishes a bulletin and scientific works. But it has

especially developed as a center for information and general guidance.

In consequence of this, we now receive all kinds of letters from all countries, but many more from Europe than from America, where our work is little known as yet. I am therefore grateful to the "Century Magazine" for allowing me to introduce myself to its readers. Some of these letters are not of great interest. There are people who demand to be told some infallible method for succeeding in love, or in lotteries. Large numbers of the letters describe typical cases of nervous trouble, whose diagnosis is fairly easy, and for which we can generally recommend psychotherapy. Sometimes it is parents who are uneasy about their children or about their future careers; and for these we advise, according to the needs of the case, a reëducative treatment, a psychoanalysis, or an examination with respect to choice of profession, and so on. We also receive many disclosures of family, professional, social and emotional conflicts, which we have to try to unravel; while some confidential letters, addressed to me personally, are veritable confessions. Often in ten or twenty pages the drama of a whole life is revealed.

We make every effort to deal, to the best of our ability, with the exigencies of each individual case. When people can come for a personal consultation, the task is greatly simplified. Otherwise, we try to put our correspondents in touch with a practitioner, a clinic or some local institution in their own country, and we are naturally glad of any information about such. In cases where this is impossible, advice is

given by letter, but that is a poor substitute for direct contact.

It is very desirable that we should know of local practitioners and organizations in all countries, and in a general way I should like here to recommend our work to everybody who feels interested in the idea, and who could support us either directly, or by making our efforts known to others. The Institute is not subsidized by any official organization. It depends on its own resources; that is, on voluntary contributions from individuals or local societies; and we need not blush to admit that these contributions are inadequate for the task we have undertaken.

The cases that we are able to examine closely provide us with material for scientific observations whereby our experience is constantly enriched. Such material seems to me of the greatest value to psychology in general, and in this respect I can confirm the opinion of Pierre Janet, who asked, "Is it quite correct to say that a practical psychology must be an applied psychology?" When one speaks of an applied science, that usually means a well-founded theoretical science with such applications as can be *deduced* from the theory. This is the case in physics, mechanics and chemistry. In psychology it is rather different, for here the actual practice itself is the great provider of ever more precise theoretical knowledge. Consequently, the practical experience of suggestion and psychoanalysis has given much more to theories concerning the mind than it has received from them; for formerly theoretical psychology consisted of a few abstract formulas, and of scholarly discus-

sions concerning mental faculties and other problems equally far removed from concrete experience. The great discoveries of the new psychology have followed, rather than preceded, the putting into practice of psychotherapeutic disciplines, while helping, in their turn, to perfect these disciplines. At the very least one must admit that there is a continual and reciprocal exchange between theory and practice.



From what has already been said it will be recognized that the problems about which we are consulted present many and various aspects. The greater number of them, however, can be classed under the general heading of *conflict*. Sometimes the chief part is played by conflict with environment, difficulties of family, professional or social adaptation. It may be an unhappy marriage, daily duties performed against the inclinations, or a difficult relationship with a superior or with fellow-workers. In other cases the conflict is established in the inner being. It is a struggle with self; perhaps a will that is weak, or has become weakened, and cannot conquer, despite all efforts, certain undesirable habits or pernicious tendencies. Or it is a struggle among several tendencies which hold one another in check—a conflict which may appear in a peculiarly definite form at the time of choosing a profession or deciding upon marriage. Finally, at the level of the unconscious we find certain conflicts similar to these, but unknown to the subject, and originating in infancy, which can only be cleared up by psychoanalysis.

In truth it is no exaggeration to

claim that this last form of conflict is always at the bottom of the other three. Every conscious conflict can be seen as the continuation and emergence into consciousness of an unconscious conflict taking part in quite another region. A young man may find himself torn between the desire to follow a certain career, and the fear of not succeeding in it—or the desire to do something else. Such a conscious condition may correspond, in the unconscious, to a classical form of conflict well known to psychoanalysts—the conflict between the desire to imitate, to take the place of, the father, and the feeling of guilt which ever since childhood has warred against this desire (Œdipus-complex). A conflict between scientific and artistic tastes may also be the reproduction of an unconscious conflict between infantile tendencies to “repressed curiosity” on the one hand, and “exhibitionism” on the other hand. Even conflicts with environment which seem, at first glance, to depend entirely on outward circumstances, invariably cause these old deeper and more secret conflicts to vibrate in the unconscious, invariably combine with them, strengthen and are strengthened by them. Thus the conflict with a superior in office may be partly determined by the character of the superior, but partly also by the revival of the infantile conflict with the father. In the same way an unsuccessful marriage may be largely due to the fact that one of the parties has remained unconsciously “fixed” upon a former object of affection: for instance, the wife may have remained “fixed” in her love for her father or brother, or even in

homosexual fantasies (Diana-complex). Very undesirable and even dangerous tendencies may be founded upon the subject's unconscious desires. For instance, an unconscious desire for self-depreciation or self-punishment may be the foundation of conscious feelings of inferiority, weakness of will, and all sorts of inhibitions that are capable of paralyzing action and preventing success.



As to the strictly nervous troubles which form a large proportion of the cases we have to study, it seems at first sight as though they contradict our assertion that we have to deal chiefly with conflicts. But, on the contrary, every analyst is well aware that the neurotic finds his privileged territory in conditions of conflict, and that every nervous symptom is like a translation, in symbolic language, of one of those unconscious conflicts of which we have spoken. An artist may suffer from stage-fright, another person may complain of agoraphobia (nervous fear of crossing empty spaces); the analyst will discover behind such symptoms a conflict between the desire to take a prominent position and the desire to hide; and in a deeper region this conflict, in its turn, is resolved into that between a primitive "exhibitionist" tendency and its opposite. Speaking generally, nervous symptoms can be considered as the result of a compromise between an instinctive amoral tendency and a moral one which opposes it; but this double interplay is unconscious. It appears only in the disguised form of the symptom, and can only be brought to light by psychoanalysis.

Freud has been criticized for insisting too exclusively upon such unconscious conflicts originating in infancy, and for disregarding the equal importance of actual conscious conflicts. I do not think this criticism is justified. The analyst must first insist upon what is less clear, less obvious—upon what needs to be discovered and explained. Nevertheless it is true that certain analysts give the impression, at least by their language, that they deliberately neglect the more immediate and visible elements. Here the work of Jung has been useful in calling attention to the actual conflicts; but we must not allow these, in their turn, to cause us to underestimate the others. It is difficult to maintain that the infantile conflicts associated with the actual problems should be interpreted merely as images or symbols, by means of which the later, and the only important, conflicts are expressed.

My view is that the conscious actual conflicts and the unconscious infantile conflicts both have their reality and their importance, and that the actual situation is aggravated by the fact that these conflicts combine with and complicate one another. They become polarized, rather in the same way as we have seen an Austro-Serbian conflict and a Franco-German conflict precipitate, through a double interplay of alliances, a general conflagration of the West. This law of the "polarization of conflicts" is worked out in the conclusion of my psychoanalytical study, "Psychoanalysis and Æsthetics," of the poet Emile Verhaeren.

The object of the analyst is to disentangle and dissociate the vari-

ous conflicts, and to reduce the actual conflicts to their true value—which is never *nil*, but is always less than it appears to the subject. In this way their solution is greatly facilitated.

In theory it looks as though it might be necessary, in almost every case, to examine the state of the unconscious conflicts by means of a brief general psychoanalysis, before applying methods of suggestion or of education of the will. But in reality analysis is a slow and minute process, often impracticable, and in many cases simpler and quicker methods have to be used. Experience has shown that suggestive methods alone—even those that are applied only to the conscious mind—often bring about excellent results. They are unquestionably less radical and less decisive; but no reasonable builder would maintain that every house that needs repairing must necessarily be rebuilt from top to bottom. In cases of conflict with environment it sometimes suffices to bring about modifications in the environment and the conditions of life, without directly intervening in the mental sphere; but each case needs individual examination, and no absolute rule can be formulated. All that can be said is that in complicated cases, and in relapses, psychoanalysis is usually indicated; and in simpler cases, when it can be used, it helps to prepare the ground for other methods.



But in any case it is not helpful to the subject to recommend methods that are too simple and too promising, that claim to be panaceas, and are in reality the property of charlatans. The modern public, under

the deplorable mechanical influence of actual life to-day—an influence which can never be strongly enough condemned for its evil effects upon human culture and mental balance—is only too ready to demand, as a cure for its sufferings, all kinds of little mechanical, material, exterior appliances, that can be procured for ready money and manufactured in quantities.

One of the gravest charges that can be made against the foolish vulgarization that has usurped the name of Couéism is that it has encouraged the public in this dangerous error. In reality, the treatment of moral troubles is less simple than most people wish to admit. Mental, as well as all other, hygiene, demands sacrifices that are sometimes severe, and very often psychagogy and psychotherapy find themselves joining hands with the ancient disciplines of philosophy and religion. Like these, they may exercise the right of demanding that the pupil shall first of all reform his conduct and his way of life. This is what I have tried to point out in a book written in collaboration with Dr. Lestchinski—"The Inner Discipline"—where we have demonstrated all that is actually contained in the great disciplines of Buddhism, Stoicism and Christianity, and have shown how they agree with the new scientific techniques.

In conclusion—if a whole civilization has in some respects gone astray, and is a cause of continual conflicts through which the highest human values become obscured, the sooner this essential fact is faced, the nearer we shall be to intelligent reorganization.

A NEW VOYAGE TO LAPUTA

Mathematics and Intellectual Versatility

QUENTIN GULLIVER

AS A BOY I was fascinated by the account of the voyages and adventures of my redoubtable ancestor, Captain Lemuel Gulliver, whose "Travels" have won him fame in every country of the globe. And it has ever been the pride of our family that his writings, composed in an age of suspicion, satire and malice, were uniformly pitched on the lofty plane of severe scientific accuracy. His observations are distinguished no less for their precision, justice and candor than for their scrupulous avoidance of every taint of venom, passion and prejudice. While few travelers have resisted the natural temptation to heighten the effect of their chronicles by an occasional exaggeration or extravagance, Captain Gulliver steadfastly refused to beguile the interest of his reader by the violation, however minute, of the strictest canons of veracity. He might indeed have risen to royal favor, had he stooped to the odious arts of the sycophant, but he cheerfully accepted an honorable obscurity rather than compromise his almost Quixotic devotion to the truth.

There was one point however in Gulliver's celebrated memoirs that caused me increasing perplexity: In his voyage to the land of the Houyh-

nhms he exalts reason as the noblest endowment of the mind, while in his voyage to Laputa, or the Flying Island, he censures the inhabitants for their pursuit of a science which is universally allowed to be the very essence of reason. The king and all the nobility of this strange land of Laputa were mathematicians, a circumstance alone sufficient to excite the wonder of the traveler whose experience had been limited to countries governed by hereditary monarchs. His description of this people is, I believe, unique in sacred or profane literature: "They beheld me," he says, "with all the marks and circumstances of wonder; neither indeed was I much in their debt, having never till then seen a race of mortals so singular in their shapes, habits and countenances. Their heads were all reclined either to the right or left; one of their eyes turned inward, and the other directly up to the zenith."

Gulliver was bewildered to note that when a group of these Laputans were in conversation, a domestic—called a *flapper*—stood by with an inflated bladder, containing dried peas or pebbles, with which he flapped, now the lips of the speaker, now the ears of the listeners. For "it seems, the minds of these people

are so taken up with intense speculations, that they neither can speak, nor attend to the discourses of others, without being roused by some external taction upon the organs of speech and hearing; for which reason, those persons who are able to afford it always keep a flapper in their family. . . .”

This habit of reflection disqualified the Laputans for practical affairs. “And although they are dexterous enough upon a piece of paper in the management of the rule, the pencil and the divider, yet in the common actions and behavior of life, I have not seen a more clumsy, awkward and unhandy people, nor so slow and perplexed in their conceptions of all other subjects, except those of mathematics and music”—their minds being attuned, as he tells us, to the music of the spheres. “Imagination, fancy and invention, they are wholly strangers to, nor have they any words in their language by which those ideas can be expressed. . . . If they would, for example, praise the beauty of a woman, or any other animal, they describe it by rhombs, circles, parallelograms, ellipses and other geometrical terms.”

I was well aware that it is the habit of ordinary men to ridicule that which they do not understand. But the simple honesty and sincerity of Gulliver’s narratives seemed themselves adequate insurance against error. And I took satisfaction in the contemplation that his opinion has been confirmed by the generality of mankind.

Thus in his Autobiography, Benjamin Franklin relates how his Junto club was marred by the inclusion of

one Thomas Godfrey, “a self-taught mathematician” who “knew little out of his way, and was not a pleasing companion; as, like most great mathematicians I have met with, he expected universal precision in everything said, or was forever denying or distinguishing upon trifles, to the disturbance of all conversation.”

The genial Autocrat of the Breakfast-Table, commenting on Babbage’s calculating-machine, exclaims, “What a satire by the way is that machine on the mere mathematician! A Frankenstein-monster, a thing without brains and without heart, too stupid to make a blunder; that turns out results like a corn-sheller and never grows any wiser or better though it grind a thousand bushels of them. . . . Sometimes I have been troubled that I had not a deeper intuitive apprehension of the relations of numbers, but the triumph of the ciphering hand-organ has consoled me.”



Jealous of the honor of my family, I determined to examine the evidence at first hand. To this end, I sought to acquire a knowledge of the rudiments of the Laputan or mathematical language. Here I encountered formidable and unexpected difficulties. True, at that time, Laputan was the only international language, but it had not yet supplanted the vulgar or mother tongue anywhere except in Laputa or the Flying Island. The trouble arose from several causes. First, in countries other than the Flying Island, the curricula of the schools, which in former times had emphasized Laputan as a fundamental subject, had been expanded at the hands of the reformers to in-

clude cooking, plumbing, vending, dancing, yodeling, pugilism, quoits, vaudeville and many other courses. One of the most flourishing divisions was concerned with the teaching of teachers to teach in institutions wholly devoted to teaching other teachers how to teach all of these subjects. This great multiplicity of courses, coupled with a chaotic elective system, according to one ardent champion, enabled the duller pupil to spread his ignorance over such a vast area that the consequent thinness of the film rendered its detection impossible—except indeed to the professors of psychology, who devised certain delicate engines for its measurement. Again, the Laputan grammars, which had been prepared by the masters in antiquity for the guidance of mature men, were now put into the hands of adolescent children, who, finding the logical exposition only confusion worse confounded, contracted a violent aversion to all things Laputan; nor could they thereafter hear the word spoken without a shudder. But the chief difficulty I attributed to the practice in the schools of assigning the Laputan courses to the professors of pugilism, crocheting or yodeling, who, however skilled in their respective accomplishments, were unable to conduct their Laputan classes without a key, being total strangers to the syntax, prosody and etymology of the language.

In spite of all these obstacles, I at length acquired such skill in the elements of Laputan that I felt I could safely undertake a journey to the Flying Island without an interpreter. Thither I embarked by airplane, setting my course for the location re-

corded in the log of Captain Gulliver, and arrived at the metropolis some hours in advance of my calculations. I was received with great cordiality by the inhabitants, who were not insensible of the tribute paid them by my mode of travel, which had been made possible by their own researches.

I lost no time in enrolling myself at the Royal Academy, where I noted at once that the custom of employing flappers to assist at conversation had entirely disappeared. Indeed, by one of those curious mutations of language, the very sense of the word had altered. Now "flapper" was used to designate the young women students of the Academy, who were present in large numbers and who were distinguished, I was told, as much for their brains as for their beauty. The annual grade ratings invariably exhibited the most brilliant organizations of men as ranking somewhat below the most stupid of those of the flappers. The men defended themselves as victims of the elective system which permitted the flappers, by enrolling in the colleges of dancing, modeling and yodeling, to capitalize their natural graces—or of the circumstance that the great majority of the professors, being of the male sex, marked the flappers in proportion to their comeliness. But such excuses ill comport with that lofty sense of sportsmanship so zealously instilled by the department of pugilism.

Delving into philology, I found that the parent or root language whence all the Laputan dialects were derived bore the name of Geometry, a discipline that Plato held in the highest esteem. "How often,"

wrote Plutarch, "Plato used to say 'God geometrizes continually.'" And Laputans maintain with vigor that their language is the only suitable vehicle for recording the laws of the creation. A learned Laputan was once heard to exclaim in a moment of ecstasy, "Oh God, I think thy thoughts after Thee." Another, who bore the names of illustrious men, thought to celebrate both God and Plato when he adopted as an emblem for his signet a scroll engraved with the words *ἀεὶ ὁ θεὸς γεωμετρεῖ*—God geometrizes continually—and immediately beneath, Alexander Hamilton Lee, Geometer.

What wonder that the youth who sought instruction in philosophy from Plato found his fitness challenged at the threshold by the legend over the doorway? "Let no one unacquainted with geometry enter here." For, says Plato, "This knowledge at which geometry aims is of the eternal and not of the perishing or transient. Then, my noble friend, geometry will draw the soul toward truth, and create the mind of philosophy."

The Laputans lament the passing of the Platonic tradition and complain that the hordes of accredited candidates who present themselves in increasing numbers at the Academy, so far from being acquainted with geometry, have only been inoculated, as it were, by a kind of geometrical virus and rendered forever immune in consequence. Indeed the very chairs of geometry are crying for a restoration of Plato's interdiction to purge them of the circle-squaring, angle-trisecting cult that still flourishes in the remoter provinces of the frontier.

I could readily understand my ancestor's honest amazement at the habits of reflection so conspicuous in the Laputans, accustomed as he was to the society of merchants and sailors whose minds are seldom freighted with graver concerns than the fluctuations in the credits, exchange and other lotteries of trade, or the turn of the tide and the wind or the prospect of wine and women at the next port. The Laputans however labor in a domain where success is conditioned on concentration of all the powers of the mind through considerable periods of sustained thinking. As Lord Bacon remarks, "If a man's wit be wandering, let him study mathematics, for in demonstrations, if his wit be called away never so little, he must begin again." Accordingly, from early youth they cultivate the attention and practise the art of concentration. Thence arise the anecdotes of absent-mindedness—of Newton, absorbed in thought, leading his horse up a hill, only to find when he came to remount that he held the empty bridle in his hands; of Sylvester, teeming with ideas, stepping up to the nearest cab and feverishly covering it with figures, until it moves away leaving him bewildered in the street; of Gauss, buried in meditation, when summoned to the bedside of his wife who was sick unto death and to whom he was tenderly devoted, remaining mute to a first appeal, failing to act at the second, whereupon the servant returned a third time with the announcement, "Your wife is *dying*"—and received the calm reply: "Tell her to wait till I come."

But such instances, I perceived,

do not properly "speak the vacant mind," but on the contrary, in Sylvester's phrase, they proclaim the "brain on fire" that Rodin has so brilliantly portrayed in his masterpiece, "The Thinker." The Laputans were quick to adopt this statue as a symbol of their culture and have accorded it an honored place in the Academy. At the ceremony of unveiling, one of their orators advanced their claims in the following language: "When one looks upon the tensely corded muscles of that Herculean figure, notes the fixity of gaze from beneath the sternly rigid brow, observes the effective deployment of limb and feature in one coördinated and dominant striving, reads in the posture of the body and in every lineament of the face the mighty wrestling of the mind within, he senses that the artist has wrought into enduring bronze the apt pen-picture of his countryman Rabelais of some four centuries ago—'Contemplate a little the form, fashion and carriage of a man exceeding earnestly set upon some learned meditation, and deeply plunged therein and you shall see how all the arteries of his brain are stretched and bent like the string of a cross-bow'—and he concludes that sculptor and scholar alike have caught a momentary glimpse of the mathematician in the heroic travail of creative thought. For 'to think the thinkable' has been called the province of mathematics."

The Laputans hold in great contempt that man who is never able to mobilize the faculties of his mind and focus them on any enterprise sufficiently to forget the dinner-hour, or walk across the street occasionally in violation of the traffic signals.

A second indictment brought against the Laputans by my perspicacious ancestor is that they are endowed with a single talent, in the petty increase of which they devote their entire energies. I was greatly surprised therefore when I learned that of the brilliant luminaries in the realm of mathematics, four were equally renowned in philosophy. Says Hankel: "The union of philosophical and mathematical productivity, has always yielded the choicest fruits to mathematics. To Pythagoras we owe scientific mathematics in general, Plato discovered the analytic method, Descartes created analytical geometry, our own illustrious countryman [Leibnitz] discovered the infinitesimal calculus—and just these are the four greatest steps in the development of mathematics." If living men are to be admitted to this company, the names of Einstein and Russell are proposed—the first is a mathematician who has kindled a revolution in philosophy, while the second is a philosopher who has disturbed the rest of many a mathematician. Not long ago Harvard University dramatically exemplified the intimate contact between mathematics and philosophy when, seeking a successor to Josiah Royce, she called A. N. Whitehead, a distinguished mathematician, author of an epochal treatise on Universal Algebra and co-author with Russell of "Principia Mathematica," that monumental work on mathematical logic.

Leibnitz was also trained in the law and held a diplomatic post under the government and was librarian to the Duke of Hanover. Isaac Barrow, the first Lucasian professor of mathe-

matics at Cambridge and founder of a distinguished mathematical dynasty that flourishes unimpaired to this day, was a man of varied accomplishments. He was at once a brilliant and original lecturer on mathematics and one of the best Greek scholars of his day, having first served his university as professor of Greek. He was moreover one of the greatest theologians of England and was in turn chaplain to Charles II, master of Trinity College and chancellor of the university. John Bolyai, a mathematical prodigy who knew calculus at fourteen and who discovered a non-Euclidean geometry at twenty-one—that geometry in which the sum of the angles of a triangle is always less than two right angles—was a virtuoso on the violin and a captain of cavalry in the Austrian army. An expert swordsman, his human qualities are sufficiently attested by his quarrels with his fellow-officers, thirteen of whom challenged him to single combat. Accepting on condition that after each duel he be permitted to play a bit on his violin, he came out victor in all, leaving his thirteen adversaries on the square. John Napier, inventor of logarithms, was a theologian of renown who was rated by the historian Hume as more deserving of the title “great man” than any other his country has produced—a country famous for its great men, including the honored names of Burns, Scott and Stevenson. Laplace, the great master of celestial mechanics, was minister of the interior under Napoleon and later a senator of France. He was one of a quartet of contemporary French mathematicians whose talents were recognized by the dis-

cerning eye of Napoleon, himself a mathematician of no mean ability. Lagrange, to whom Frederick the Great wrote, “The greatest king of Europe invites the greatest mathematician of Europe to his court”—Lagrange was appointed senator and count. Monge, the creator of descriptive geometry, who invented a practical fire-engine at fourteen and who was a professor of mathematics at twenty-two, served on the General’s staff in Egypt. Poncelet, student of Monge, “father of projective geometry”—that court where the Euclidean and non-Euclidean differences are amicably composed—was an officer of engineers in the campaign against Russia. The “myriad-minded Euler,” “analysis incarnate,” the most prolific of mathematicians, who produced an original memoir on the average of once a fortnight for over fifty years and whose printed works will require upwards of seventy octavo volumes—Euler was learned in physics, astronomy, chemistry, botany, medicine, theology, history, language and belles-lettres and could repeat from memory the entire “Æneid.” And there is Newton, “crown and glory of his race,” “the greatest genius that ever existed,” of whom his chief rival Leibnitz said, “Taking mathematics from the beginning of the world to the time when Newton lived, what he had done was much the better half”—Newton whose solitary grandeur has been celebrated oft in prose and verse:

“ . . . Where the statue stood
Of Newton, with his prism and
his silent face,
The marble index of a mind forever

Voyaging through strange seas of thought alone."

He was twice elected to Parliament and was appointed master of the mint, a station which he filled with distinction for many years. Even Newton, who had done so much to resolve the baffling problem of the moon, said in his age, "The moon makes my head ache, I will think of it no more"—and turned his thoughts to theology.

The whole world knows the story of Queen Victoria and Lewis Carroll: how the Queen was so fascinated with "Alice in Wonderland" that she asked the author for copies of his other books, but was dumbfounded—as what monarch would not have been?—to receive nothing but works on the higher mathematics. For the creator of the delightful adventures of *Alice*, and the author of the best nonsense poetry in the English language, was in real life Charles L. Dodgson of Oxford, an equally charming guide to the wonderland of mathematics. To the immortal Euclid, first professor of mathematics at the university of Alexandria, founded by Alexander the Great, belongs the honor of having composed in his "Elements of Geometry" *the best seller of all the ages*—a book that has passed through two thousand editions, has been translated into every civilized tongue and which is still used in England substantially as Euclid left it. Archimedes of Syracuse, greatest mathematician of antiquity, whose engines for the defense of his city were at once the wonder and the terror of the besieging Romans is said, by means of burning mirrors, to have set fire to

the enemy ships in the harbor—a feat that rivaled the exploit of Gulliver himself in bringing back single-handed as a prize to Lilliput the entire battle fleet of Blefuscu.

Such resourcefulness one does not find among men whose sole accomplishment is a certain dexterity upon a piece of paper in the management of the rule, the pencil and the divider. And since these signal instances could be multiplied almost at random, I am forced to the reluctant conclusion that my revered ancestor, Captain Lemuel Gulliver, spoke from a superficial observation when he declared that, "In the common actions and behavior of life, I have not seen a more clumsy, awkward and unhandy people, nor so slow and perplexed in their conceptions of all other subjects." On the contrary, it would seem that a truly great mathematical endowment is an unfailing index of superior capacity in other directions.



In pursuing a sort of converse question, I found that the Laputans preserve in the archives of the Academy a register of certain illustrious foreigners—men whose claims to fame rest on solid achievements in many fields, but who have evinced an aptitude or fondness for the Laputan mysteries, and a deep appreciation of the Laputan culture.

It was his perplexity over the subtleties involved in proof and demonstration that interrupted the law studies of Abraham Lincoln and sent him humbly back to his old geometry to spend six months in mastering the demonstrations of Euclid. Elihu Root, jurist, diplomat, statesman, framer of the constitution of the

Permanent Court of International Justice, Secretary of War and of State in Roosevelt's cabinet—who could have held any other portfolio with equal success, according to the testimony of his enthusiastic chief-tain—Elihu Root shared the mathematical inheritance of his family, his father and his brother having been professors of mathematics at the same college. What American of his generation has served his country with distinction in more posts of importance than Charles Evans Hughes, as investigator extraordinary of insurance frauds, governor of the first commonwealth of the nation, Justice of the Supreme Court, Secretary of State, chairman of the Washington and Pan-American international conferences, a record recently crowned by election to a judgeship on the World Court? Yet it is said that Governor Hughes sought recreation from the cares of state, not beside the pools and ripples of a trout-stream, but in the pages of his geometry.

Expressing surprise that such eminent lawyers should possess mathematical taste and prowess, I was informed by the Laputans that it had become proverbial at the great law schools that those students who were well grounded in mathematics attained the highest rank in the study of the law. Cayley and Sylvester, first and second wranglers at Cambridge, both were called to the bar and both returned to their first love, mathematics, to create the modern algebra and to win a place among the first half dozen of English mathematicians. Sylvester displayed his fancy and imagination on many occasions, but never more happily

than when with sublime wit he chose as the motto of his newly established "American Journal of Mathematics" the second half of Paul's definition of faith: *The evidence of things not seen.*

Dr. Emanuel Lasker, chess champion of the world for thirty years, is a professional mathematician. Napoleon, whose chess-board was the map of Europe, "not infrequently employed his leisure over a book of logarithms, in which he always found recreation." Helmholtz was an omnivorous genius whom Clifford characterized as "the physiologist who learned physics for the sake of his physiology and mathematics for the sake of his physics and is now in the first rank of all three." Steinitz, the electrical wizard, like Maxwell, combined a profound knowledge of pure mathematics with an uncanny insight into its physical interpretation. Presidents Eliot and Lowell of Harvard were major students of mathematics who took high honors in the subject, the former continuing for ten years on the mathematical staff of his Alma Mater. The University of Göttingen still honors the memory of J. Pierpont Morgan, the elder, who was a graduate student at that mathematical capital of Germany. After Morgan, with his genius for finance, had made himself the first figure in American business, he returned to Göttingen, according to anecdote, and visited the University. Whereupon his old professor, in reminiscent mood, recalling the promise of his youth, patted him on the shoulder with paternal fondness and remarked with a touch of sadness: "Ah, Morgan, if you had only followed my advice and elected an academic career, you

would now be a full professor of mathematics." Benjamin Franklin did not let his opinion of the quibbling mathematician in the Junto taint his judgment of the mathematics, for he asks, "What science can there be, more noble, more excellent, more useful for men, more admirably high and demonstrative than this of mathematics?" Indeed the Laputans are proud to recollect that Franklin found amusement in constructing those curiosities known as magic squares and that he devised some of the most intricate varieties, since named in his honor. One of these he describes as the "most magically magical of any magic square ever made by any magician." Then, by way of apology, he explains that he occupied himself with these diversions during his clerkship of the Pennsylvania legislature—in the intervals when the debates became dull or uninteresting. Speculative Laputans still dispute concerning the magic which the genius of a Franklin might have wrought amidst the fostering atmosphere of the national senate-chamber.

If my gracious and magnanimous ancestor had been fully aware of the versatility of these and other great men, had he known that their special abilities were mingled with such zeal and talent for the most rational of sciences, I am convinced that he would have removed them from the category of Yahoos, elevating them in his estimation close to the level of those noble reasoning horses which he so much admired in the land of the Houyhnhnms.



The frequency with which mathematical and linguistic aptitude are

united has been often remarked. And the reason, as perceived by Willard Gibbs of Yale University, is not far to seek. After listening to a prolonged and heated debate on the relative educational merit of mathematics and language, Gibbs closed the argument by the simple observation, "Mathematics is language."

I concluded my studies at the Laputan Academy by an inquiry into the nature of this marvelous language that has enlisted the admiration and the labors of so many eminent men, that cannot be circumscribed by national boundaries nor confined by physical barriers, that recognizes neither race nor creed, rank nor condition, whose devotees do not languish or repine for some golden age gone by, for this vital universal speech thrives wherever thoughtful men meditate the ways of truth.

Every one will concede that mathematics combines precision of concepts, accuracy of expression, rigor of reasoning and certainty of conclusion. On this account it is the ideal model of all the natural and engineering sciences, is twin brother to logic and near of kin to philosophy. Its quantitative methods are gradually leavening the social sciences, and promise in time to bring them under its inexorable sway. But the mathematician finds in the intricate symmetry, harmony and proportion of mathematical form, a chaste beauty which is sufficient unto itself; and many mathematicians like to fancy themselves as not very distant cousins of the poets and painters. "It was not alone the striving for universal culture which attracted the great masters of the Renaissance,

Brunellesco, Leonardo da Vinci, Raphael, Michelangelo, and especially Albrecht Dürer with irresistible power to the mathematical sciences. They were conscious that, with all the freedom of the individual fantasy, art is subject to necessary laws, and conversely, with all its rigor and logical structure, mathematics follows esthetic laws."

The world has long acclaimed Leonardo da Vinci for his portrait of "Mona Lisa" and his painting of the "Last Supper." But he is now recognized as one of the world's great scientists. He left behind him thousands of pages of scientific notes, embodying results of researches over an amazing range of subjects. He was famous as a painter, sculptor, goldsmith, engineer, architect, physicist and mathematician. His work on mechanics places him far ahead of his time; he was one of the founders of the theory of optics. He was a genuine pioneer in aviation—invented the parachute, and made minute scientific studies of the flight of birds which have hardly ever been surpassed. "Let no one who is not a mathematician read the elements of my work," he wrote—a warning that is reminiscent of Plato.

Likewise, to the world at large, Omar Khayyam is famed as a philosophic poet, pondering the age-old enigma of man, his life and his destiny. But in his own land of Persia he is known as the great mathematician and astronomer. He wrote a treatise on algebra, the greatest of his time, which advanced the theory of cubic equations and indicated that he was familiar with the binomial theorem. He served on

the Sultan's commission for the reform of the calendar, a task that was performed with great success. He alludes to this labor in the quatrain:

"Ah, but my computations people
say
Reduced the year to better reckon-
ing? Nay
'Twas only striking from the calendar
Unborn to-morrow and dead yester-
day."

But there was one problem which eluded the combined craft of the mathematician and poet:

"Up from earth's center through the
seventh gate
I rose, and on the throne of Saturn
sate,
And many a knot unraveled by the
road
But not the master knot of human
fate.
There was the door to which I
found no key . . ."

Here are two conspicuous examples, of a great poet and a great painter, who excelled in the creation of beauty, but who found that the cultivation of the fine arts was not incongruous with the practice of mathematics.

Had my sagacious and discerning ancestor encountered such men as these among the inhabitants of the Flying Island, I am confident that he would have qualified his statement, "Imagination, fancy and invention they are wholly strangers to." And he would have been the last to deny that the mathematician who painted the "Mona Lisa" had found an effective means of praising the beauty of a woman without the use of rhombs, circles and parallelograms.

TABLE TALK

RECIPROCITY with Canada, which has never been able to summon a majority in this country, now seems more a Utopian dream than ever. Idealistically, it seems that both countries should be benefited by the free exchange of commodities; such an exchange would at least give healthy color to the arch patter—in which we have never taken any stock—about trade being the best insurance of peace. But actually, there is no ground for free-trade optimism between us and our northern neighbor, who is, incidentally, our biggest customer. Canada has always favored a low tariff wall, or none at all, whereas we are bent on piling the tariff bricks higher and higher. The economic argument for a protective tariff against Canadian goods is rather complicated, and from a detached point of view, extremely short-sighted. Senator Borah stated our position with succinct frankness when he said in a letter to the Canadian Chamber of Commerce:

"I feel that the agricultural interests in the United States will be greatly benefited by an increase in duties on agricultural products. In my opinion it is the most definite and immediate relief we can give to the American farmer. . . . Some people in their sentimental and impractical philosophy may find fault with such a policy. But it is, after all, the foundation of national life and well-being—we must within reason and moderation have concern for our own."

While Canada remains docile and unretaliative—a rôle that she has always played in the past—Senator Borah's argument will carry the day. But suppose Canada decides to erect a tariff wall of her own? What will be the effect on our farmers then? Premier King is being severely criticized by a large part of the Canadian press for not initiating a tariff reprisal policy—a good stiff one that will give the bald eagle something to scratch his head about. When Canada does just that, she will have taken the first step toward the free trade, or something closely approaching it, that should be in effect between the two countries.



Q. HORATIUS FLACCUS, in recounting the joys of his Sabine farm, lists arboriculture as one of his prime pleasures. But one day an ill-propped tree, a *triste lignum*, nearly fell on Quintus Flaccus, whereupon he wrote an excellent poem and gave orders that all trees of doubtful virtue should be immediately felled.

To-day he would have called in a tree-surgeon, a man who is a combination of engineer, architect and physician; a scientist who knows how to use concrete fillings, iron braces, internal struts and keen excising tools to prolong the lives of grand old trees and ailing young ones. Arboreal Therapy (they call it something else, of

course) is now taught at many universities; schools of tree-surgery send out hundreds of practical tree-physicians every year. Your ancestral oaks and towering elms have no excuse now for lapsing into undignified decay or premature old age. But if they do, don't wait for them to fall. Call in a tree-surgeon, let him prop and lop among your boughs, that your children's children may enjoy the pleasurable shade that Horace sings and Virgil celebrates.



REGARD now, the New South! It is no longer a terrain of "swords and roses," of impoverished gentility and political estivation, but a region of humming machines and forward-looking business men. Manufacturers have supplanted the traditional julep-drinking colonels; mannered compliment and emphasis on caste have given way to exploitation of natural resources and considerations of profit. Leather and textile industries, once the pride of New England, are centering in Chattanooga, Atlanta and Montgomery. Galveston continues to climb toward second place among our seaport cities. Fields that were once paralyzed when the cotton market was poor, are now flourishing under the 4-C system of corn, cattle, cotton and clover, rotating in crops that rest and enrich the soil. The South is beginning to realize that it has something more than traditions and "Blood, suh." Its brains are as good, its soil is as fertile, its manufactures as marketable as those found any place in the world. Within the past ten years the South has shown a greater proportional advance than any section of the United States, and during the next decade it seems destined to compete on even terms with the East in manufacturing and the Middle West in agriculture.



TOLSTOI once advanced a theory of art which maintained that no picture, symphony, novel or poem was important unless it could be absorbed and understood by the peasant intelligence. In applying this critical principle, he ruled out much of Beethoven, Goethe, Wagner and Verlaine—not to mention Leo Tolstoi himself. The last echoes of his question, "What is Art?" have not yet entirely faded, and many an esthetic tornado takes a running start from the title of Tolstoi's famous volume.

But since there are only a few peasants left in the world, chiefly in inaccessible places from which they cannot be summoned easily to pass judgment on a work of art, we suggest that a new critical dictum be advanced to cover all contingencies. The new theory would run something like this:

Nothing is art which takes more than ten minutes to see, hear or comprehend!

It is a matter of common knowledge among clergymen that no souls are saved after the first ten minutes. The greatest odes of Wordsworth, Shelley and Keats do not require more than ten minutes in the reading. Chopin, Grieg, Bach and César Franck have kept some of their best work within the ten-minute limit. Under this ruling we could eliminate Ibsen, Eugene O'Neill and Romain Rolland. As for Shakspere, Euripides and Shaw—well they never claimed to be artists anyway, preferring to be known as successful dramatists and purveyors of good entertainment.

How about more ten-minute art? Not ten minutes in the making, you understand, but ten minutes in the enjoying. Compactness, elimination of unessentials, and a greater attention to the speed rhythms of modern life would improve almost any self-confessed work of art that has recently been brought to our attention.



ALONG with herdics and antimacassars the "board-boy" of the brokerage offices is now a relic of the past. His job, to which he brought a medley of dramatic and acrobatic talents, has been taken away from him by the teleregister, an instrument which now automatically records market quotations on the big green board. The agile maneuvers of the board-boy as his chalk responded to the announcer's voice—"GM up a half, KO flat, Monkey down an eight,"—were a source of amusement to the tense habitués of the broker's office, a comic relief to the serious business of taking paper profits and losses. When the teleregisters are installed, the whirr and excitement of chalking up an eight million share day will be toned down to a monotonous scribbling by mechanical fingers that can handle a ten million share day without tiring. So chalk up another gain for efficiency, another loss for color and personality. The lithe board-boy climbs down from his narrow platform, glances resentfully at the teleregister, and joins the breech-loading musket and the coal-oil lamp in the moldy cellars of obsolescent gear.



NORTH, South, East and West are no longer mere compass points; they are the four sides of the bridge-table, the four angles of the American card-playing intelligence. The rigors of Mrs. Battle's favorite game have been complicated by new and esoteric features; a race of instructors has sprung up to explain the mysteries of contract-bridge, and approximately four million persons sit down every day for a rubber or two. Bridge has become a national passion, against which pinochle, politics, humor and love-of-little-children batter in vain. Conservative figuring indicates that six million hours a day are spent at the bridge-table in this

country; calculating the players' time to be worth a modest dollar an hour, it appears that we spend something like two and a quarter billion dollars a year playing bridge.

At this statistical juncture, a million bridge addicts will grasp their stylographs and pen indignant defenses of the "peculiar institution." We shall hear much, I warrant you, of the intellectual agility required of a good bridge-player, of the indissoluble bonds of comradeship formed during a heady contest, of the value of bridge as an innocent social diversion. All of which may be true, though we have never found it so. Bridge seems dull, pale sport to us, incomparable with other, realer joys.



CENSORS are stubborn misguided folk with an overdeveloped sense of social responsibility, itching prurient minds and scarcely a glimmer of intellectual perspective. They are fond of confusing truth with nastiness, and proceed on the assumption that the world must be made safe for prudery. But even realizing these things, we were amazed by two recent cases in New York which carried the false logic of censorship to absurd lengths.

The first case consisted of a police raid on a long established and legally functioning Birth Control Clinic, a seizure of medical record cards (which is the equivalent of putting a dictaphone in the confessional) and a preferring of criminal charges against the doctors at the head of the Clinic. But the doctors knew their rights, and after taking aggressive legal action, secured the return of their record cards and an apology from the Police Commissioner. Here was censorship pinned to earth and booted in the teeth for good measure.

A few days later, Mary Dennett Ware was found guilty in a Federal Court of sending "obscene and lascivious matter" through the mails. The "obscene and lascivious matter" was a small pamphlet originally used to impart fundamental sex knowledge to her own children, and later used by public schools and educational societies in and around New York. To interpret this pamphlet as obscene is in itself an obscenity, and to close the mails to educational matter of this nature is a triumph of censorial ignorance.

If these things had happened in Tennessee or Massachusetts, the funny papers would be full of merry japes at their expense. But when it happens in New York we begin to be alarmed. Perhaps the Censors are in the majority after all and perhaps individual liberty is just another figment of the idealist's fancy. We believe that civil liberty is the salt of republican government; and if New York loses its savor, wherein shall we be salted?

SLAVERY IN THE SOUTH TO-DAY

Significant Results of a Previous Condition of Servitude

WINIFRED KIRKLAND

SOMETHING seems to happen to people when they cease to use their own hands. When there is a slave class to perform all physical toil, the leisured class pays certain penalties for privilege, penalties not at once discernible. In Athens such men were free to employ their intellects for great literature, great art, great statecraft—but those same intellects, released from the saving realities of stone-cutting, wood-chopping, brick-laying, finally went ballooning up into thin air and Athens perished from lack of ballast, from too much time to talk. Unused hands seem to take an ultimate vengeance upon the head, rendering it incapable of clear realistic judgment. A slave order, whether founded on a military, racial or industrial supremacy, results first in the parasite woman, and then in the parasite man. Men and women who can to-day afford to have some other man or woman tend their hair and put on their shoes, may look back on those fair, leisured days of Athens or of Virginia and know their own social order doomed to the fate of all barnacles. The mental and spiritual effects of slavery are long lasting. I have often wondered just what elements in Southern life to-day, as I look at and experience that

life, are due to the fact that the grandfathers and grandmothers of the people I know were once waited upon by an army of dark-skinned servitors.

The first thing to be observed is that the descendants of that army are still with us and in growing numbers. In Athens the master class were not so racially severed as to make ultimate amalgamation a difficult process. But here in our South live side by side the children of an ancient white aristocracy and the children of an ancient negro savagery. In examining this astounding situation one needs to distinguish sharply between what might theoretically be expected, and what is really occurring; because the actual results, as they can be everywhere observed, are amazingly different from what might logically be prophesied. The glib pessimists of to-day should be caught, crated and shipped south. If any one wants an argument for the essential splendor of human nature, black or white, he should spend fifteen years in the South and see the harmony in which two races inherently alien and hostile, live in closest association. There is injustice, of course, antagonism, of course; but considering past history, that there should be any concord at all

is a miracle. The surface smoothness of Southern life to-day, theoretically incredible, is actually due, I believe, not to the injustice of negro disfranchisement, but to the everyday practice of justice in the personal contacts of the two races. Whatever the white man may think he thinks about the black, whatever the black man may think he thinks about the white, life in the South could not go on at all if it were not for the profound respect each race really feels for the other. This mutual respect is a direct heritage from slavery; its origin is to be found in those decades of proved loyalty of master for slave, of slave for master. Slavery has left a residuum of sheer mutual affection which, even in the increasing harshness of a mechanistic age, our South, both black and white, will be long in outgrowing.

Slavery has, however, bequeathed something else, pitiful and sinister, which constantly operates against this mutual regard and undermines it. I often wish every thinking Southern white, and every thinking Southern black, would turn his eyes inward more frankly that he might distinguish between the good and the evil that slave conditions have entailed upon his mentality. Such clearness of insight is the only method of spiritual manumission both for the descendant of the owner and for the descendant of the owned. The problem for both is how to increase the respect remaining from slave days and at the same time to decrease the sinister fear dating from the same period.



One means that would augment the latent respect of white for black

is neglected by the thinking negro, namely the Southerner's characteristic emphasis on the individual. Far more than the Northerner, the Southerner thinks in terms of the personal. What the nearest dusky Tom, Dick or Harry does and is, will have profound influence on the nearest white Tom, Dick or Harry. This fact constitutes an immense advantage, but unfortunately the negro does not sufficiently value it. Far more than the white man, the Southern negro, in actual daily conduct, thinks not in terms of the individual but of race, and resents wrongs to his people while he himself is, or might be, enjoying much personal privilege. Bitterness is a luxury that vitiates and many a colored man is to-day retarding his own emancipation by an old-time envy of his white master that reveals him as still subject to the psychology of the slave.

Just as the possibilities implicit in the Southerner's innate reverence for the individual are not sufficiently apparent to the negro, so also many of them fail to appreciate the dignity of accepted handicap—that dignity, for example, which is illustrated in this true and recent story. In an old Southern city lived an old Southern lady, very fragile, delicately masterful, worshiped by three daughters, the finest aristocracy of their town and of the old historic Anglican Church. The mother was not strong enough to go about, so was accustomed to private communion at the hands of the rector. It happened that on one occasion he was out of town, and the daughters suggested his assistant. To their astonishment the mother, old aristo-

crat as she was, refused and demanded another man whom she had observed at some church service. His utter reverence had profoundly impressed her, and she asked for him now in the emergency. He came to the house and the memory of his quiet coming and going, his complete and selfless spirituality, is something the daughters speak of to this day. It is from them I heard the story. The man is black. This incident perhaps could not happen twice in all the South to-day. That it happened at all supports my argument that the most promising solution of the negro problem lies in taking advantage of the Southerner's characteristic respect for the individual.

In any examination of the after-effects of slavery, one would, logically, give particular study to the mental attitude toward toil. Theoretically, one would expect the one-time master for many years after to associate labor with a slave's condition, and the slave to associate idleness with the master class and therefore to look upon the shady veranda, the roomy "rocker," the palm-leaf fan and the julep, as the desirable prerogatives of freedom. As a matter of fact what has really happened is this: in the desperate struggle for existence that characterized the seventies, every Southern boy from ten years upward was forced into pitiless labor. Toil lost its odium and became honorable for the white master's son and that son's sons. But it has been different with the daughters. Chivalry would even to-day try to protect women from the hearty realities of broom and dish-pan. The average Southern woman still dreams back to a long-lost ease and would rather

struggle with an inefficient cook than with a kitchen. Never retarded by slave traditions, the Northern and Western woman has long ago mastered her kitchen and reduced it to its proper place in household economy. I am speaking, of course, of that great average middle class in which are numbered the majority of all women, north, south, east, west, and I am saying straight out that of these four geographical divisions, the Southern woman only, hampered by past slavery, views housework as a personal indignity. It is true that there are noble and notable exceptions to this attitude, and that these will come more and more to be honored and imitated by the rest; but it is also true that the majority of Southern women to-day even while they perform household tasks with efficiency, too often do so with an inner protest which is a spiritual handicap resulting from decades of ownership.

As far as I have been able to observe the past and present attitude of the negro toward the ugly fact of work, it appears that for a generation or two he did copy as far as he could that delightful indolence he had seen practised by many an old-time Southern planter. Subservience to the master's ideals is always the fetter longest surviving from any condition of slavery. It is a question whether that imitativeness so constantly ascribed to the negro is evidence of a native characteristic or of that universal psychology by which a slave always imitates his master. The negro will never be emancipated until he ceases blindly to copy the master race. It seems to me that the more thoughtful and sane of the

negroes are looking back at slavery with a new eye. That expression so common in the South, to "work like a nigger" is revealing to some negro minds not its odium, but its honor. The descendant of the slave is beginning to look back not at the idleness enjoyed by the white man's ancestors because of slavery, but at the industry achieved by some of his own ancestors in spite of slavery.



One of the most potent influences on Southern life and character is the direct result of slave conditions. It is an influence so beneficial in the past that its dangers for the present and the future are not perceived. Often I want to say to my Southern friends, "Stop talking about race contacts when a colored woman is molding your child for all his life." Now I myself, having first-hand knowledge of some of the after-effects of slavery, feel much as every Southerner does about amalgamation; and yet it has always seemed to me tragicomic that on a street-car in the South a black woman may not sit next to a white one unless that black woman should have a white child on her knee. A blond baby in her arms automatically converts the negro woman to decency and desirability as a seat-mate. It has always seemed to me tragicomic to dread physical amalgamation so intensely and at the same time to cherish that complete mental and spiritual amalgamation inevitable between nurse and child. The negro nurse has always held in her hands the destiny of the South. Down through the generations her influence has been perhaps the most far-reaching heritage that slavery has imposed. In

the happy days of old Virginia and old Kentucky, old Georgia and the rest, the influence of the dark-skinned nurse was in the main salutary. To-day it constitutes a danger little considered. For the old mammy is dead, and the woman who is taking her place has not her characteristics.

It is astounding, as one reads or hears about it, the prestige of that black mammy. It is almost unbelievable that not merely the physical care of a tiny child but his mental and spiritual direction should have been so largely intrusted to people only lately transplanted from the jungle. The really unbelievable element in this custom is that it worked so well. The black house-servants proved actually worthy of the trust imposed. The sardonic irony implicit in the slave-master relation is nowhere more evident than in the fact that the master class has always thought the slave class better fitted to care for white children during their most susceptible years than their own fathers and mothers. It is of course far from sufficiently realized north or south, that the earliest years are the most important, even though psychology, sociology and biology incessantly pound into us the truth that a child is shaped for life by the age of four. Granted this scientific fact, then the most significant result of slavery is that at least for a hundred years—the white child of the upper and middle classes has been during the most impressionable period of his life entirely subject to that dreaded thing called Negro Domination.

For decades, the negro mammy was often the most potent personality in many a Southern household.

She deserved to be. She was the agent of a most important transmission. Shrewd, observant, devoted, she in her own person transmitted perhaps better than any one else the finest traditions of that civilization which slavery enabled to flower in the old South. More carefully than their own parents, she handed down to her little charges the fairest graces of their grandfathers' code. Truthfulness, courtesy, graceful kindness, personal bravery—they flourished on the black nurse's tongue and in her example. But this black nurse is dead, gone at last together with that mode of life she longer than any one else helped to preserve as an ideal in the Southern mind. Who is taking her place? There are still dusky nurse-girls, for the slave tradition that child-tending is a servant's business still persists; thus Southern parents do not share their children's youngest years as do parents of a corresponding social class in the North. Yet conditions have so changed that while the colored nurse has the same power, she has not the same character. While there are of course fine exceptions, still I believe that any thinking negro would agree with me that the average nurse to-day is hardly fitted by mentality or training to be the custodian of any little child. Yet this careless woman is often the chief hourly influence upon a growing boy until he is seven or eight years old. The bitterness popular among many educated negroes has filtered down to many an ignorant one, so that often as I watch some rough-voiced nurse-maid, I wonder what her underlying emotion is toward the baby son of the dominant white,

and what effect this emotion may have upon his own budding intelligence and his own developing attitudes.



Mental emancipation from slavery is a process as slow for the master as for the slave. The code of the cotton-mill owner derives from the code of the plantation owner. A few years ago Frank Tannenbaum vividly pictured the methods by which "The South Buries Its Anglo-Saxons." The southern mill village is composed of mountain white employees, people by character and history quite as incapable as the old-time negro of any concerted action. Where the old-time negro was helpless from ignorance, the present-day mountaineer is helpless from fierce individualism. In the old days there was a gulf between the owner who labored not, and the slave who did. The underlying feeling of the cotton operator for the people who spin his cotton is not so different from his grandfather's feeling for the people who picked it. The conviction of ownership responsibility is essentially the same. Like his ancestor the slave-owner, the mill operator feels it is his duty to see that his operatives are healthy and comfortable. The schools, the nurses, all the welfare agencies that he provides are modern instances of the cruder and more personal methods in use on the plantation. Most mill-owners, as were most plantation-owners, are humane and responsible men, but a generation that once accepted human slavery has handed down the opinion that the mill-workers belong not to themselves but to the mill. Deprived of incentive and motive, the mill-

villager does not profit by all the paternalistic philanthropy. This inherited mental attitude which regards hands as chattels is beginning to have unpredictable consequences. Mainly because of the cheapness of the mill-worker, the northern textile industry is moving south. The new mill-owners do not inherit the plantation-master's kindness toward his chattels, but they will be quick to take advantage of the fact that the mill-worker is regarded as a person not free but owned. The results, both industrial and human, cannot be foreseen. Old slavery has far-reaching new ramifications.

The social and human results of a previous condition of servitude, however, are less painful and more subtle to contemplate than the industrial; and it is because of the social aspects which have so long occupied my attention that I am here at last breaking into print with my observations. I only hope I shall lose none of my Southern friends thereby. I feel myself looking into their eyes as I write, but fortunately their eyes and mine are both accustomed to reciprocal twinkles.

A few years ago I came north after an unbroken six-year stay in the South. I was drinking tea by the firelight with some choice old friends, which means I was thinking aloud. I was saying, "I never before felt so deeply the differences in general point of view between North and South."

"What difference chiefly?" some one asked.

I heard my lips saying what I had not realized I had ever clearly formulated.

"What I most feel on my return is the absence of the social reference."

At once it was necessary to elucidate something as real as it is difficult to explain. Whenever I talk over any matter of conduct with a Southern friend, he or she, as a Southerner, is always aware of an invisible entity of which I myself, as a Northerner, am supremely unconscious. The Southerner relates all his personal behavior to the social circle at the top of his city or town. This attitude is something quite different from the common subservience to a group standard. In the South, people do homage to the leading social set of their community from deeply conscientious motives, because they conceive this particular circle to be the custodian of a profoundly important tradition. It is this feeling that makes men rate a dinner engagement as high as a business deal or a professional appointment, that makes a woman pull herself up from a sick-bed that she may not disarrange a friend's bridge-party. Both men and women feel that the social fabric may dissolve if in any detail they fail it. In the South, Society, spelled with a capital, is a clear, crystallized entity, to which people pay genuine and conscientious fealty. One's attendance at social functions, one's public appearances constitute a recognized code of personal ethics. Something very dreadful will happen if you refuse an invitation as lightly as you often do in the North. It is rank heresy for me to interpolate here my personal opinion that whatever Southern society may have been in the fifties, to-day all social intercourse is far more spontaneous and irresponsible in the North than in the South.

But I am far from asserting that our Northern irresponsibility toward Society is right, and the Southern heavy responsibility toward it is wrong. Our Yankee carelessness easily degenerates into crudity. The point I would emphasize, however, is that the present importance of Society in all Southern life and thought to-day, is directly traceable to the fact of slavery. We up North have no such momentous tradition to preserve because as a whole our grandparents were too close to the realities of the kitchen stove and the plowed field to develop the dinner-table and the dance into a religion rather than a relaxation. Slavery left the old South free to evolve an art of intercourse which was elsewhere impossible. Slavery left old Athens free to evolve a play of intellect which our harsher, more realistic modern days will never attain. But such amenity of daily living, such brilliance of mind, could not possibly continue at flower. The inner spirit informing each was dependent on slave hands to support the underlying structure. The brave effort of the present-day South to maintain against the harsh impinging of a machine age, the importance of all social usages, is in itself a profound loyalty to that grace of living attained by old Richmond or Charleston or New Orleans. But the price of the effort appears to me heavy because it strains to preserve the externals rather than the spirit of that beautiful, old-time existence. It is strange how we of the North and West dream back to the graciousness of life which was the supreme achievement of the old South, permitted by human slavery. May a

newer South some day cease to cling so tightly to the mere mechanics of inherited tradition, but never, never, for all our sakes, forego that leisured courtesy, that cult of friendliness, that integrity of the personal, which were the heart of a bygone social order.



The position of women in any slave civilization tends to be parasitic. No woman's wit rings down to us from the Platonic dialogues; no woman's wisdom ever penetrated the busy Athenian agora. And what woman of to-day, if she is really honest, would wish to have been a woman of the old South? The Southern woman of the present is still heavily handicapped by her old position as slave mistress. She will never be completely enfranchised until there ceases to be, even in the remotest village oratory, any reference to Southern Womanhood. I never see that expression without wondering why there has never been such a thing as Northern Womanhood. Is it that we've always been too busy to cultivate this commodity?

For some reason when there are slave-hands to free a woman from toil, the woman grows to be subtly undervalued. Old Greece frankly shoved her into the woman's quarters. Less frankly the old South removed her from men's concerns by placing her on a pedestal. The slavery of the negro woman entailed upon the Southern lady a slavery of herself, a slavery to charm. There is no time for the contempt in which the old Athenian could indulge himself, no time for the veneration in which the old Southerner could

indulge himself, when men and women are forced to do first-settler work side by side in breaking in a new continent as in early America, or in breaking in a new system of government as in proletarian Russia. If one were asked to describe in four words the chief difference between past Virginia and present Russia, one would have to say, the position of women. In any social system where people employ not slave hands but their own, women are neither scorned nor revered, but respected. Slavery has bequeathed to the Southern woman of to-day her pedestal, with all its perquisites, all its penalties. I can hardly believe my own ears in these fact-facing nineteen twenties when a girl bride says to me, "My mother has told me always to keep a man a lover." I wonder how many Southern mothers are still saying that, and wives living it. There is a boast I have heard from various women, "I never went into a kitchen until I was married." What pitiful lack of equipment for a supreme job, remarks such as these imply! A mental slavery to a traditional attitude that could never have existed except for actual slavery, and an attitude that is almost incomprehensible to a Northern woman! To keep a man a lover, what boredom for both husband and wife!

Southern chivalry, the chief duty of man, Southern charm, the chief duty of woman, neither could ever have been raised to the dignity of a cult unless black hands had freed master and mistress from the saving realities of toil. But there are to-day signs that the saving reality, not of toil but of humor, is undermining the religion both of charm and of

chivalry. In fact I would never have dared to write what I have written here if a Southern woman-writer had not lately set me a courageous example. I always wonder what the Southern man of to-day really thinks about chivalry, chivalry not as it affected his leisured grandfather, but as it affects his practical, toiling self. Yet chivalry has aspects that make it a luxury hard for any man to relinquish. Chivalry is the attitude that protects the woman because she is physically and mentally inferior to the man, and at the same time venerates her as being morally and spiritually superior. This is a personally appealing philosophy since it contributes to physical and mental complacency, and at the same time permits irresponsibility to one's own conscience out of deference to the finer conscience of woman. There are, however, two faults to be found with chivalry and they will eventually send it to the discard. In the first place it isn't true—women are not so fragile physically, nor so feeble mentally, nor so noble spiritually as chivalry would like to believe; in the second place, chivalry is no longer practical. It was possible in the easy days of negro bondage, but in this whirring, hurrying present, chivalry takes too much time and attention. Charm also takes too much time and attention. These facts both men and women of the South are beginning to discover, but it is a woman who has first come out and said so. Isa Glenn's most delicious, most analytic novel, "Southern Charm," is a declaration of the Southern woman's emancipation from charm. I await the day when some Southern man shall come

out as boldly and announce his emancipation from chivalry.



Slavery in the South of to-day—it was a bold subject to announce since no one could treat it adequately. For that reason I have always found it alluring. Human slavery in old Greece, in the old South, permitted certain valuable developments and entailed equally significant liabilities. The relation between human owner and human chattel has always unpredictable results enduring far into the future. To-day we boast that the machine is giving us the physical freedom that human slavery gave to our forebears. But always the slave-master relation entails subtle penalties of intimacy. The machine of to-day is acquiring human characteristics. Many a machine can now feel and hear and think

better than many a man. But in proportion as the machine has acquired the characteristics of its master, has the master taken on the characteristics of the machine? All our life to-day is under the tyranny of wheels. The present interrelation of man the master with his slave the machine, promises to have far greater influence upon the future of the world than human slavery has had upon the present South. White man and black are to-day equally in bondage to a soulless new master who is decreeing a civilization without soul. Against the brutal tyranny of a machine-age the descendant of the white master and the descendant of the black slave have no surer protection than their shared dream, their shared tradition, that ideal of gracious living which long ago master and slave, together, created.

INEVITABLE

CHARLES HANSON TOWNE

Out of the old disordered dust of things
Came clowns and kings;
Out of the seeming waste of things that were
Came lord and servitor.

Back to the mold shall go the glowing stars
And captains of old wars;
Yea, back to ashes all the proud and great,
To Death's dim, broad estate.

THE SECOND IMPULSE

How in the Case of Marian Gage It Was Put to the Test

FARADAY KEENE

UP TO the windows of the wide and beautiful room rose the irritable honks of the big car before the door, each time more impatient—and louder. Marian Gage, at her dressing-table, with her lifted hat in hand, bit her lip to control her nervousness, and steadied her charming head; her maid, with gentle hurrying fingers, was eagerly making a last adjustment of the coiled hair. There had been a foolish telephone call from a woman with nothing to say, who talked and talked, and after that Marian had had to change for golf; she was late. Her husband, down in the car, was waiting, knitting his heavy handsome dark brows. Getting provoked. Arthur was not a pleasant companion when he was provoked.

And this time how everything had made for delay! The lustrous hair, a premature crown of silver, had refused to go right, the maid's anxious fingers were all thumbs. . . . Her mistress, quivering with anxiety, got the hat on with one desperate tweak, sprang up, gathered her gloves . . . and was off. Running downstairs, she heard her fears foretelling just what awaited her in the great deep leather-cushioned seat at Arthur's side, into which she seldom sank without the unuttered

question in her mind: "What now?"

To-day, alas, there would be no question at all. Arthur had a welcome new text for his discourse on middle-aged women who were vain of their hair . . . wouldn't "bob." Who kept every one waiting while they prinked. And he would note and diagnose and purposely prolong her shrinking fear of being asked again (how many times had he asked her!) if she couldn't forget one idle compliment. He would harp on it: the time when John Meade had soberly praised the fine shape of her head ("like the Greek coins," he had called it) with its coiled braids. That had been Arthur's pretext, his opening thereafter to deride the silly complacency of fading women who cling to some chance word dropped by a courteous male. Just an idle word of John Meade's. . . . Arthur would roll the name on his tongue, watching to see her flinch. She would be sitting close to him in the car with no protection from his overbearing voice and eyes and no escape; she could not get away. She knew exactly what it would be like all the way to the country club. Five miles.

But when she was at last beside him in the front seat, deprecating, breathless, and they were off at terrifying speed, he did not at once

begin. He drove as if she were not there, furiously, in silence. She sat waiting, clenching her cold hands, knowing all the time that this was the effect he wanted to produce. He was tasting her suspense; he knew how to rack her nerves with dread of what was coming. Often, in moments like this, she had tried to smile and talk of something that might divert him, schooling herself to think of him as if he were a child, a big rough careless child who did not mean to be unkind. But to-day, to invoke that charitable illusion was beyond her. His mood was too plain. . . . Ah, why couldn't she relax, why couldn't she just be limp, and let it all go over her like a bitter wave?

She felt a little light-headed. She supposed her friends would think her mad if they knew that, as she sat here outwardly composed, she could positively *feel* Arthur's mind ranging its resources, its instruments of torture, before the utterance of the word that would represent the inquisitor's first step toward the victim bound to the stake.

Or was it possible, since the silence was lasting as Arthur's silences were seldom wont to last, that for once he would merely . . . blessedly . . . sulk? He was still speeding, watching the road, perhaps forgetting her. Careful not to draw his notice, she settled back, the tension slackening in her thankfulness at being ignored.

And for the thousandth time she asked herself why she could never hit back. Not, of course, physically—though, athletic still at forty, she might have been equal to *that*—but morally. Why had she never opposed her will to Arthur's? It was because

of his immense, his disconcerting and paralyzing power to be cruel—cruel without touching you, *bien entendu*, without lifting a finger. His unerring sense of the thing it would hurt you most to hear. All you wanted was to cower, to crouch, to attract no notice. It was worth any abasement just to be let alone.

The things that people would endure from Arthur! Their guests last night at dinner, hectored, bullied, insulted almost—how they had tried to grin, with their reddened cheeks, had swallowed his loud brow-beating words. No doubt such words went down more easily with cocktails and champagne, with caviar and plovers' eggs and silver dishes of God-knows-what, served by flitting obsequious beings in livery.

After dinner, Vail Rogers talking. Vail thought himself both a psychologist and an *esprit fort*. "In a pinch," he was saying, "people have everything but common sense. And they fall a prey to their virtues." And then Arthur struck in, with his favorite tone of truculent banter, "I was beginning to worry about you, Vail. You hadn't made a fool remark for ten minutes. But I guess now you're normal."

Rogers flushed and hesitated. Marian, her eyes on the tip of her slipper, marveled anew at the things that people would take, would stand. *They*—these men and women who still ate her husband's dinners (the Meades, John and his brother and sister-in-law, did not come any more)—were free. They could decline. They need never, for all the rest of their lives, hear the sound of Arthur's voice again unless they chose.

And yet they came, they kept on coming, they endured it all—his boastfulness, his money-pride. Sometimes she wished she could tell them that before he made his money Arthur had not been so bad—that in those other days he might have seemed just noisily genial and bluff, really almost pleasant, to any one who needn't live with him. Now, however, though he still had the high-colored good looks and the adventurous mind that had once upset her own judgment, surely no illusion was possible. Loudly he ran on about his town and country places, his travels, his "deals." Every purchase was a deal. And last night he had told again the tale of buying the Florentine bed—all about its rarity, its price in *lire* and in dollars. (Nothing about its loveliness, its carved bewildering beauty.) They had found it together, Marian had loved it, Arthur had beat the man down. And now at last it had reached the customs, but it was an antique and not a cent would he pay! He meant it, he boasted he was never "held up." Arthur would always get his money's worth—just as he got his value for his champagne by insulting Vail Rogers.

Vail had decided, as usual, not to take offense at Arthur. But he was the least bit touched by the wine, enough to be spunky. "*You* don't fall a prey to your virtues, Gage. You haven't any." Arthur had laughed at that, good-naturedly enough, rather pleased than otherwise. Vail had gone on obstinately. "I was talking about the rest of us. What I mean is, that under a surprise-attack, we react by habit. And we've been trained out of the healthy

self-regarding impulse, trained to do the silly thing that's good for the herd. Our official religion tries to upset the natural and normal relation between the weak and the strong by imposing on the strong man the dangerous and foolish illusion of loving his weaker neighbor as himself—"

"Vail, you are simply perverse!" drawled Elsie Duane. "In a crisis, everybody acts for himself and nobody else. The herd may go hang."

"No," said Vail, quite earnestly for him, "it's the other way round. Foolish, but true. Of course we do strike at a rattlesnake, we do dodge a blow. The individual, threatened individually, acts for himself alone. But let a second person be involved and see what occurs. Do we show any sense of the real art of living? Do we ask, with enlightened selfishness, 'What is the sensible thing to do—sensible for *me*?' We do not! We're doped with altruism, I tell you—with fallacies about the sacredness of human life and loving our neighbor as ourself. So you get such a spectacle as a man, supposedly sane, leaping under a truck to save an imbecile child that ought never to be saved at all."

"There's a kernel of truth in Vail's chaff, sometimes," said Arthur. "Look at the good old rule of the sea: 'Women and children first.' A man giving up a million-dollar life"—incredibly rich he looked, just saying it—"while a woman who never did a thing in all her days but wear clothes steps into the life-boat."

"And it isn't only a general case," said Vail. "It's often a special one. We not only do the things that are foolish in general for anybody; we do

the particular things that are foolish most of all for our particular selves. We dive in after the man who foreclosed the mortgage on our farm, we tow him ashore—"

"Why isn't there a second impulse," asked Elsie, "to neutralize the first—to say to us, 'Here, this isn't what I want to do'? Why don't we let go of his collar, when we've come to, and let him sink?"

"But don't you remember," said Paul Akers, the "literary" guest, "the poor devil in 'Wuthering Heights' who saved his enemy's child just instinctively—by mistake? It describes his face when he realized what he had done. And how he had—but couldn't obey—what you call the second impulse."

"I suppose the first one exhausts the charge of the battery," said Arthur. "Afterward, it's run down."

"Something like that," said Vail. "The person you had saved might be your worst enemy, you couldn't do a thing about it. The second impulse is always a dud. You have it, but it never goes off."

"Really never?" said languid Elsie, over her cigarette. "It's a dud always?"

"In the absence of some fresh and intolerable provocation, applied on the instant, I should say: always."

Marian had listened without real attention. How little their talk—any one's talk—meant! Selfishness, altruism, were such hollow words. For her, the art of living was to escape the lash of her husband's tongue, to lull to sleep his preternatural ingenuity in malice. Sometimes she wondered that he did not tire of baiting her. Down the long room she looked, to where she saw herself, a

distant reflection in the depths of a great glass. The misty black dress, the thin sparkling diamond chain, a pale cheek, silver slippers, silver hair. Coldly she knew that if that image in the glass had been another woman she might have thought of her as a gracious lady, slim and fine. And yet what Arthur felt for her must be hatred. Though she knew that never would he let her go. No . . . he wanted her . . . there. . . . He meant to keep her always.

To this familiar point her mind had come round, when she was startled back to the moment actual and present. Arthur was slackening the speed of the great car; he had worked off his first rage of haste. And he said,

"You've got a new mashie in your bag."

"Yes. I've been wanting one."

He laughed. "It won't bring your play up to hers."

"Hers?" To let Arthur "draw" you like that was always unwise, but she was mystified, taken aback.

"The Grayson girl's, the one that's after him now."

In spite of herself, she flushed. She felt it . . . the almost nauseating wave of physical heat that burned her skin. Helpless resentment . . . shame . . . everything. Arthur went on, "You didn't tell me he was back."

She said, "I didn't know." A sudden sweetness in her veins fanned the flush higher, even as she realized how foolish she had been again. Doubly foolish . . . to show him, without the mention of any name, that she knew he meant John Meade. John, back from South America, after eleven long weeks . . . John.

His departure, his return, were nothing to her really—could never be anything. He did not even come to the house any more. But sometimes she would see his car go by, along the road; sometimes they would meet, he would speak to her . . . a few words . . . with that drop of a half-note in his steady voice that was the single, the only sign of what he felt for her.

Arthur said, "Humph!" with his eyes fixed on her face. She saw his dreaded slow smile. The more slowly it dawned, the more exquisitely galling would be the words whose leisurely marshaling in his mind had so entertained him. This time it was very slow. At last he said, "You've got a lot more wrinkles round your eyes since April." John Meade had sailed in April. "And I bet it's not for lack of patting stuff on at night."

John Meade . . . John Meade. . . For years she had tried not to think how sweet it might be to grow old across the hearth from some one friendly and kind.

"Too bad," said Arthur, "that I beat the pneumonia that time . . . before the competition for him got so keen."

John's steadfast eyes. Such *good* eyes. She must not cry, Arthur wanted her to cry, was watching for that tormented break in her self-control. He was saying, "But I hear he has made a good pile of his own, this last deal. Barrels of money. They'll all be after him now. But the betting's on Miss Grayson. You can be thinking about the wedding present." He chuckled. "By Jove, she's a Renaissance type, all right . . . of course we've always known

he likes 'em with long hair. Well, we'll give 'em your Florentine bed!"

She was dumb, with burning eyelids. It was not even his hateful words, it was the chuckle that ran through them with all its conscious cruel intent, that brought up the lump to her throat, the stinging tears to her eyes. He *wanted* to hurt, to humble her; to bruise and shake and break her nerves. She heard him say, "Hard luck, old girl. But by now I guess you've tried all the cold creams there are."

Her tears blinded her now, the countryside was little more than a featureless blur of green through which they sped along, but the familiar ugly noise of the cement-mill ahead told her where they were. Half way. The mill, clinging still to its inappropriate place on their fine road, sometimes diverted Arthur's bad temper to itself as they passed; she had learned to look for it as a friend. She now had two miles and a half to steady herself in . . . if he would let her. She blinked off the tears. Reluctantly she turned her face his way, to conceal it from a man at her side of the road, a man who was nailing up a fresh notice-board, and who seemed as if he might not be too hard at work to gape at a crying lady. Arthur grinned, with no attention to spare for the board or the man. His eyes were on her twitching face, he did not look away from it even as he swung sharp into the small side-road that turned off here from the pike.

She faltered, "This road is so bad." If her voice had been firmer, she would have asked him if the new notice didn't perhaps say something about that.

"You were late," he reminded her.

"I'll make up some of that time, this way cuts off a lot."

"Are you even sure the road's open?" she said. If she could only keep up this diversion! "We might have asked that man."

"When I drive anybody with a nose as red as yours, I don't want to invite a gallery."

He had to watch the road more now, it was rougher and rougher between its wooded sides, but still he kept an eye on her efforts to steady her ravaged face. Before they should come out on the pike again, she supposed she must powder her nose; she was bracing herself for his jeering comment . . . putting the moment off . . . when the car jerked to a stop. Arthur said, "Damn!" A heavy tree was down across the road.

On their right, the growth was less a wood than a thicket. He said, "Get out, will you, and see if I can drive round the end? There may be room this side of that stump. Hurry."

She alighted, she was following the imperious line of his finger, when she heard a voice from the bushes say, "Hold up your hands."

A tall, rather thin man, with a handkerchief tied across the lower half of his face, had stepped out of the brush; he had Arthur covered with a pistol. Above the white bandage, his eyes were hard and bright.

Arthur, sitting quite still, angrily flushed, made no move to raise his hands. How fool-hardy . . . they were quite at the mercy of this man. He could safely fire . . . fire again and again; they were at the most secluded point of the road, and the noise of the cement-mill on the highway would cover any sound of shots.

The man said, without taking his eyes from Arthur, "Move this way, madam. Both of you in line. Right." She felt relief that he did not say "lady," possibly he was a decent fellow. . . . As if he read her thought, he said coolly, "You don't interest me at all, ma'am . . . personally. All I want is twenty dollars."

"Why the round sum?" asked Arthur drily. Arthur who bragged that he never carried less than two hundred dollars in his pockets.

"I'm on the run," said the other. "I've shot a man. Oh, he had it coming to him . . . he earned it! Well, twenty dollars will get me clean away, to where I'm safe. I've got it fixed, it's a cinch. I *might* do it with fifteen, with twenty it'll be easy. So—" He came a step nearer to the car.

Arthur's face flushed more darkly yet, with his rare black rage. Marian knew that flush; it meant that he was for the moment, and in the strictest Biblical sense, possessed. That this man could kill him with impunity, and thereafter take from his dead body ten times the sum he had asked . . . Arthur was past reflecting on that. He was capable of any rashness, any defiance. There was but one thing to do. She opened her own bag. "I have more than fifteen dollars. Nearly sixteen." She held it out with shaking hands. "Take it."

The man took it, with his free hand. His eyes did not leave Arthur. Between them, as their eyes cursed each other, Marian seemed to feel a growing and swelling and sinister something, like a great poisonous bubble of hate, ready to burst.

To Marian, Arthur said gratingly,

"You're a fool." He held himself still, but he was past all reason. He and the highwayman glared at each other. Trembling, Marian said to the man, "My husband's purse is at home."

The muzzle of the pistol swayed a little. The mind behind it was also swaying, uncertain . . . was being made up. In a moment the highwayman would accept his gains and go. Already he had taken a backward step. Then Arthur must needs say, "Well, you've held up a woman. Why don't you go, you—" In Arthur's ugliest coarsest tone, coarse words. No wonder the other gave a sort of bound of rage, swung back. . . . Arthur would be killed now; this man would kill him, this man who had killed one man already to-day and had nothing to lose. . . .

Marian was forty years of age, but she was lithe and quick and strong. She flung herself forward upon the man with the raised arm, she snatched at the pistol, she got a grip on it that he could not break. The whole thing lasted but a moment or two, their extraordinary struggle. Her hat was off, her hair was down. Under her foot, a hairpin cracked. For a brief time they trampled back and forth in the road, wrestling, tugging, twisting . . . yet the man seemed less coerced than disconcerted. There was one supreme moment, just before she tore the wavering pistol from his hand, when he contrived to steady it for an instant in a perfect aim. Arthur was very near, impossible to miss . . . their enemy's finger, crooked on the trigger, tried to pull, but she found she could stiffen her own aching fingers to steel, just for the second needed to spoil his aim.

It was spoiled, he did not fire, the muzzle went down. Surprisingly, she felt the pistol loose in her hand; he had let it go. Only as the bushes closed behind him, over the receding sounds of his flight, did she realize that he had panted in her ear, "Of all the wild-cats—!" Giddy, breathless, hot, with all her hair in her face, she stood victorious in the road, the conquered pistol in her hand.



Still halfincredulous of her triumph, she brushed the wild locks back, and conscious of a little glow of comradeship, turned toward her husband. In a sense, they had conquered together. His inaction in the crisis had not been cowardice; Arthur was no physical coward. The crisis had simply exploded and ceased to be, before he could spring from the car, could intervene. And his personal pluck had proved itself . . . oh, unwisely, cantankerously enough, but Arthur was Arthur! . . . in his personal defiance of the man with the gun. It was almost with a comrade's smile that she turned now, flinging the hair from her eyes. And, involuntarily, impersonally, there burst from Arthur a comrade's tribute to courage: "By Gad, you licked him!" Not husband to wife was speaking, not even man to woman . . . just one militant spark of human pugnacity to another, elated, cordial, almost proud. And Marian looked up at him through springing tears . . . tears of surprise and gratefulness that both warmed and unnerved her. Had the miracle happened, did the unlooked-for tone of praise mean that Arthur beheld her at last with eyes of friendship and plain kindness? Her throat ached

suddenly with the sweetness of her too ready hope.

Too ready! For as she hurriedly brushed her wet eyes with the back of her hand, clearing her sight, she beheld Arthur contemplating her—there was no other word for the coolness of it—with the strangest look. He was impulsive no longer. That moment had clicked and passed. His head was now thrown a little back, his eyes were narrowed. She felt like something on a glass slide, a “specimen.” He quoted:

“‘In a pinch, people have everything but common sense.’ Rogers was right! You’re a perfect case. That chap with the gun was all set to make you a widow . . . and you stopped him.”



She felt an actual dropping of her jaw . . . her lips parting. It was true. The thought had not even brushed her mind, but it was true. If the pistol had gone off, in that moment of her foe’s last frantic aim before she twisted it from him, she would be a widow now, this minute. She would be free . . . free, with everything a woman could ask for, even the blest certainty that on herself there could fall no shadow of blame. Proofs of a rescue recklessly attempted were all about her, multiplied, irrefutable. The record was there, in the trodden trampled dust, the crushed hair-pins. The demonstration that she had fought for her husband’s life.

Arthur’s trim unruffled guise, his perfect tie, his smooth hair, were clearly those of a man who had sat in forced immobility under a threatening weapon; her own torn and disheveled condition was no less clearly

the state—impossible to counterfeit—of a woman who had fought and struggled with some one who fought back. Even the weapon was finger-marked, doubly finger-marked all over . . . a convincing record of contest. And now, under her husband’s smile of amusement and malice, she felt that typical blank dismay of any fool who has done the wrong thing, mixed with her personal, her piercing despair.

Suppose it had happened, suppose she had *let* it happen? Then in this moment, save for the bullet’s work, nothing would be different from what it was now. Herself the evident frantic defender, Arthur plainly the passive party, the threatened and defended . . . What was it Vail had said? “Everything but common sense.” One did the fatal, the ruinous thing . . . by instinct. Saving one’s enemy. Riveting back one’s chains, that were slipping off. . . . Oh, John!

Arthur was saying, “Hop in. I’ll turn round.” But he did not start the engine at once, he sat looking at her, and as he began to smile again, she shivered physically. She was limp and cold, she could hardly stand upright in the road. She felt the ache in her wrenched muscles that had fought for him, and the worse ache of knowing how she was foredoomed to pay . . . how bitterly, how long . . . for her mad rescue of her husband. Her teeth chattered. What was coming now? Words like salt on a raw wound?

What came first was his chuckle. “Well, I guess Miss Grayson gets the Florentine bed—”

She jerked up the pistol at his sneering face—and fired.

MOOD AND COUNTERMOOD

COUNTEE CULLEN

I think an impulse stronger than my mind
May some day grasp a knife, unloose a vial,
Or with a little leaden ball unbind
The cords that tie me to the rank and file.
My hands grow quarrelsome with bitterness,
And darkly bent upon the final fray;
Night with its stars upon a grave seems less
Indecent than the too complacent day.

God knows I would be kind, let live, speak fair,
Requite an honest debt with more than just,
And love for Christ's dear sake these shapes that wear
A pride that had its genesis in dust—
The meek are promised much in a book I know,
But one grows weary turning cheek to blow.

Let this be scattered far and wide, laid low
Upon the waters as they fall and rise,
Be caught and carried by the winds that blow,
Nor let it be arrested by the skies:
I who am mortal say I shall not die;
I who am dust of this am positive;
That though my nights tend toward the grave, yet I
Shall on some brighter day begin to live.

Ask me not how I am oracular,
Nor whence this arrogant assurance springs.
Ask rather Faith the canny conjurer,
Who while your reason mocks him mystifies,
Winning the grudging plaudits of your eyes—
How suddenly the supine egg has wings.

REBUILDING THE FOUNDATIONS

What Has Happened to the Venerable Structure of Science

E. E. FREE

THE TEMPLE of science is continually in need of repair, but in the past three decades the venerable structure has had to be almost rebuilt. Just four years before the turn of the century a French scientist, poking around in the basement of the ancient building, stuck his finger right through one of the main foundations. Astonished by this accident, several scientific gentlemen began knocking holes through other cherished foundation stones of the familiar edifice. Within a decade the former solid-seeming groundwork of the physics wing had utterly disappeared, leaving the whole superstructure of this important branch of science suspended in the air, like the cities of a mirage.

The Frenchman who began all this destruction of cherished theories was Antoine Henri Becquerel, and the hole into which he accidentally thrust his finger was the fact of radioactivity. He died before he knew the damage that he had done, but the process of disproving everything that men then believed about physics went on rapidly without him.

Every scientific man is thankful, I suppose, to have lived through these thirty years. Never have the interest and excitement been so great. It was a vast revolution in thought, of

course, when Copernicus ejected the earth from its imagined position at the center of the universe. Another explosion took place when Newton forced his contemporaries to accept his analysis of gravitation and of motion. And it caused no small upset in men's minds when Wöhler, only a century ago, manufactured out of non-living materials a substance, urea, which every one then believed producible only by the aid of that mysterious "vital force" which lurked, undiscovered but firmly believed in, in the living bodies of animals and plants. But not one of these revolutions made the clean sweep accomplished by the one that we have just been through.

I took down this morning a textbook of physics published in 1897. I turned at random one hundred of its pages. Only two of these pages would pass muster to-day. Of the remainder, well over half would be held to be utterly wrong. About that same ratio would hold, I imagine, for the sciences of chemistry, of biology, even of geology. More than half of all the facts and conclusions and interpretations which made up these sciences in 1895 have been discarded, recast or replaced. If some scientist of the nineties sent his ghost back to visit a modern lecture-room, the poor

shade would think himself fallen into a madhouse. Even many of the words the lecturer used would be strange. In science as in politics, all that nice, tight, cleanswept little world which Queen Victoria liked so well is gone. We have a new world and a new science; whether for better or for worse remains to be seen.

In 1895 the foundations of physics and chemistry rested on a tripod; matter, motion and light. Some philosophers of the period omitted light, being content to paint their private pictures of the universe with matter and motion only. Light, they said, was a motion in the ether. Although no one really was very sure about it, the ether was supposed to be a peculiar and trustworthy form of matter. If you knew all about matter, motion and light—omitting the ether if you wished—you knew everything there was to know about physics. There were not even lacking the academic pundits who asserted that everything worth knowing about physics actually *was* known. All that remained, they said, was to fill in some of the minor details. God need not trouble further about revelation. His universe was already understood.



This complacency received a rude shock. Matter, as everybody imagined it back in 1895, has disappeared from the universe. Motion has vanished likewise. Stationary objects turn out to be in violent movement; moving objects turn out to be at rest. Former ideas of motion, although not entirely discarded from physical theory, are now held applicable only to objects of certain kinds, for example to "ordinary"

masses of the size and character with which we deal on earth. Light, the third leg of the 1895 tripod, has suffered perhaps the greatest transformation, for no one is yet ready with a new theory of light to fit all of the known facts.

M. Becquerel's adventure with radioactivity was not quite the beginning of the revolution. There had been two warnings, although, as usual, no one recognized them as warnings, not even the men who announced them. In 1888, a beautifully bewiskered German professor named Heinrich Hertz did a remarkable thing. He produced the first radio waves and concluded, rightly enough, that they were a special form of light. In 1895, only a year before Becquerel's discovery, another German, Wilhelm Konrad Röntgen, produced, also accidentally, still another form of rays. He did not know what these rays were and he was honest enough to confess it. He named them X-rays, borrowing the algebraist's symbol for the unknown quantity.

Of these three pioneers at foundation removing, Röntgen alone lived to see the house demolished. He died only six years ago, full of years and honors and blessed by every surgeon who has used the X-rays to help him set a bone.

The importance of the Hertzian rays, as they were then called, and of the X-rays was that they were something new, something that none of the complacent Horatios had dreamt of. There was no place for them in the neatly arrayed pigeonholes of conventional physics. Many pigeon-hole fanciers asserted, indeed, that these inconvenient rays did not exist,

that both Hertz and Röntgen were wrong. But, when Becquerel's proof came it was conclusive.

He indubitably did have in his laboratory in Paris some lumps of the Austrian mineral called pitchblende. These lumps really did give off rays which passed through black paper and other protecting substances, just as though they were not there, to darken the sensitive photographic plates inside. Becquerel laid a metal key between the active mineral and his paper-wrapped photographic plate. He obtained a silhouette of the key. Evidently metals were opaque to the new rays. Few scientists, even then, were willing to believe in spirit photographs and there was nothing to do but to admit that this inconsiderate Frenchman really had upset the pleasant pigeonhole system most deplorably.

It was not long until more facts came out. Living in Paris in those days was the distinguished French chemist, M. Pierre Curie, and his equally distinguished wife Marie (born Sklodowska) of Poland. These capable investigators undertook the chemical study of Becquerel's remarkable mineral. In two years they had identified in it a new element, radium. It was this element, they proved, which made the photographs through the black paper and which accomplished all the remarkable things that Becquerel had discovered. This radium was not merely a new element among the seventy odd then known; it was the beginning of a new scientific world. Mr. S. S. McClure sent Professor Robert Kennedy Duncan to France to see what it was all about and Dr. Duncan came back full of what he called

"the new knowledge." He was right. Unfortunately this great American chemist did not live to see how really new it all was or how great a change it would effect in our knowledge.

Under the hands of the Curies, of Soddy and Thomson in England and of Rutherford in Canada, the real facts about radium soon became known. It was an element, it appeared, which existed in a continual state of explosion. The atoms of all elements were thought of in those days as the last word in smallness. If you divided a bit of iron into two bits and these bits into two and so on until you could not, even in imagination, divide the fragments any more, then you had an atom of iron. No one knew much about the real natures of atoms but there was a tacit suspicion that they rather resembled very tiny billiard balls; little rounded globes of iron or gold or what not, one kind of atom for each chemical element then known. As for an explosive atom, that was impossible. How could anything explode when it was already the smallest possible particle of matter? What could it explode into?

Nevertheless, there were the radium atoms, billions of them, in the laboratory of the Curies. And these atoms indubitably did explode. Something evidently was wrong and it soon appeared that it was the prevailing theory. Instead of being small round billiard balls, what the textbooks called the "smallest possible particles of matter," atoms turned out to be very complicated structures. There is still a good deal of argument about precisely what kind of structures they are, but most physicists believe that these explo-

sive atoms of radium which made all the trouble for the theorists, contain at least four hundred separable things of some kind. It is convenient to call these "particles." Obviously, it is no great trick for a structure like this to explode and to lose a particle or two.

Thus was accomplished the first lesson. Matter turned out to be not in the least like what its pigeonhole called for. It was something quite different and new. It was soon proved that all other varieties of atoms resemble the radium atom in everything except the propensity to explode. Some of them even resemble it in that.

~

The possibility that atoms could come apart into still smaller objects soon taught physics its second lesson of the century, a lesson about electricity. The nature of electric forces had long been a matter of dispute. Some physicists preferred the "two fluid" theory, which assumed that an electric current consisted of two imponderable fluids flowing in opposite directions at the same time. Others swore by the "one fluid" theory, which was similarly imponderable but had only a single moving fluid to account for. It was true that a brilliant Irishman, Mr. Johnstone Stoney, had guessed the truth as far back as 1876 and had said that he believed electricity to be composed of tiny separate particles; but he was a little violent about it, as an Irishman would be, and nobody paid much attention to him.

The truth came, finally, through the work of a brilliant group of physical students who gathered around Sir Joseph J. Thomson at the

Cavendish Laboratory of Cambridge University, between 1897 and 1905. These men proved, beyond question, that electricity is composed of tiny particles and not of any fluid. They even forced streams of these particles out into space inside a vacuum tube and examined them. In 1909 the now famous American physicist, Dr. Robert Andrews Millikan, then a little-known professor at the University of Chicago, measured the amount of electricity associated with each one of these tiny electric particles. It is astonishingly minute. Dr. Millikan has calculated that the number of the particles which move each second through the filament of an ordinary forty-watt electric lamp is so enormous that the entire population of Chicago, working day and night without rest or distraction, would need over twenty thousand years merely to count them.

As a piece of belated justice these electric particles have been named electrons, the name proposed long ago by the Irish Dr. Stoney, who only imagined them but happened to imagine right. To any one who reads the radio sections of the newspapers these electrons are now familiar as the particles which operate the radio vacuum-tube, that marvelous electric microscope which Dr. Lee de Forest invented by watching the gas-jet in his furnished room, and which radio science has now perfected for a thousand uses. All electricity consists of these electrons. An electric current is a stream of electrons in a wire, like a stream of people in the subway. An electric spark is a crowd of electrons jumping across between two wires, as people might jump a ditch. A flash of lightning is many

billions of electrons so anxious to get somewhere that they disrupt the very air in their movements.

Nobody knows, even yet, precisely what electrons are, but they undoubtedly are the busiest little objects in the modern world. They run street-cars and ring door-bells and help us to talk over telephones and heat curling-irons. There is not fifteen minutes in an average man's day in which he does not let the electrons do something for him.

Indeed, one is not really electronless for fifteen seconds, or for a fifteen-thousandth part of a second, for electrons are certainly related to the inmost structure of atoms, so that man himself is largely made of them and their activities. If the electrons inside your body disappeared you would vanish instantly, leaving not even the conventional puff of smoke.

The electrons are not, however, quite all that there is to the structure of matter. Atoms appear to contain other kinds of objects, also conveniently thought of as particles, the objects called protons. This word means the beginning of everything, but it comes near to being the end of everything also, as far as real knowledge of the protons is concerned. About all that we know about them is that they are associated with charges of positive electricity, instead of being negatively electric as the electrons are.

Two or three years ago it would have been possible to write of these protons as though they were little solid particles; like tiny replicas of the traditional billiard-ball atoms that exploded forever two decades before. A group of these protons congregated with some electrons,

atomic theories held in 1925, to form the "nucleus" or central sun of an atom. Around this revolved, in "orbits" like planets, a series of other electrons. This is the theory of atomic structure imagined by the brilliant young Dane, Professor Niels Bohr of Copenhagen. As far as being a picture of what atoms really are, it has vanished as utterly as the billiard-ball.



More recent theories, associated with the names of Louis de Broglie of Paris, Erwin Schrödinger of Zurich, Born, Heisenberg, Dirac, Pauli and a dozen others, now hold the atomic field. According to these theories, electrons, protons, atoms and all the rest of everything that man calls matter, are different kinds of dim reflections of imponderable, invisible, almost incomprehensible, waves which vibrate back and forth throughout the universe like moving shadows of a shadow.

No one claims, not even their inventors, that these newest, mathematical conceptions of what matter is, provide anything into which the ordinary human imagination can sink its teeth. Atoms, electrons and protons, all have vanished; leaving, for the moment, nothing more substantial than a ghostly echo in empty space.

Thus collapsed the first leg of the physicist's tripod of 1895—the picture of matter as consisting of a vast flock of industrious little billiard-balls, one kind for each of the chemical elements. Replacing this we have some dimly glimpsed reflection of waves or rays or electric forces, nobody knows just what. Only one new fundamental is cer-

tain; that all these things are electric; matter and electricity turn out to be merely different aspects of the same thing, like beads strung safely on a string or the same beads rolling loosely on the pavement. A lump of sugar is as electric as a flash of lightning. Their insides are merely arranged a little differently and it is a bit unsafe to handle them as though they were alike.

~

The second leg of the 1895 tripod, that of motion, collapsed as a result of another great work of imagination, the theory of relativity of Dr. Albert Einstein. It has taken Dr. Einstein nearly thirty years to complete the formulation of this theory and it has been hinted by the unregenerate that it will be at least another thirty before any one else succeeds in understanding it. This is both unkind and too pessimistic. The theory has already revolutionized the philosophy of physics. Some understanding of it is necessary for that. In reality it is no more difficult of comprehension than are Newton's previous theories of motion and of forces. It is merely less familiar. The first Europeans who saw chimpanzees could not conceive them as other than some strange, uneducated race of men, and we all remember the medieval traveler who saw a parrot and brought back tales of the marvelous bird who "discoursed on philosophy in both Spanish and Portuguese."

It is an incurable persuasion of the human mind that anything new must be interpreted in terms of what is already familiar; new man-shaped creatures in terms of men, new speaking birds in terms of philosophers

known to use the same words. We strive unconsciously, to interpret the theory of relativity in terms of the well-worn concepts of time and space and motion with which we have lived so long and so comfortably.

This is just what no one can do. The viewpoint elaborated by Einstein is a new viewpoint. We must unlearn the old and start afresh, just as students who have learned any art wrongly must unlearn much before they can begin aright. It is probable that a baby, trained from infancy in the concepts of the Einstein theory, would find that picture of the universe much simpler than the one which seems more familiar to us.

I must be careful, too, not to be misunderstood when I call the Einstein theories a work of imagination. This they superlatively are; perhaps the greatest *tour de force* that the human imagination has yet accomplished; but that does not mean that they are fictional or impractical. They were begun, indeed, not in order to be new or different but to aid in explaining some enormously troublesome contradictions which had appeared in the actual data of science. One of these, as every one knows, was the Michelson-Morley experiment, an experiment which should have detected the motion of light through the ether, but failed. There were two ways of explaining this negative result. One was to assume that the experiment was wrong. The other was to imagine that we were using the wrong theories about light. Einstein took the second alternative and worked out its logical conclusions. That is not quite all that there is to the Einstein theories, but it is the beginning.

Among these logical conclusions were some about time and space, which meant, of course, that they affected our ideas of motion. Motion is a change in both time and space at once. So much space is covered in so much time. Obviously, if either time or space is non-existent there can be no motion. Now it is possible to show, quite convincingly and quite independently of the Einstein theories, that both time and space are probably figments of the human brain and not natural realities at all. It is unnecessary to pause actually to demonstrate this because it has already been done, very adequately indeed, in two old and well-known works of fiction, "Flatland," by Dr. Edwin Abbott and "The Time Machine," by Mr. H. G. Wells.



The Einstein theories lead, just as Newton's theories did before them, to a description of the universe. Dr. Einstein's latest addition to his theories, the one that astonished Einstein and every other physicist by attracting such world-wide popular attention last winter, attempts to include in one description the two apparently diverse things ordinarily called electricity and gravitation. It is possible to express any of these descriptions in words, but too many of them are necessary. Mathematical expressions are easier and less mistakable, just as scientists prefer to express the laws of a compressed gas in an automobile cylinder by the familiar formula $PV=RT$. Those who use the Einstein viewpoint in their thinking usually think mathematically. Their deductions come out in formulas and equations, not in dogmas or verbal laws.

Time and space as realities have vanished from Einstein's universe. They are merely partial aspects of it, as a mountain looks like a sawtooth if one sees it from one side. A man appears to us, in what we call space, as a rounded, elongated globule possessing certain recognizable shapes. But this same man exists and "moves" in time. At a certain point in time he seems to be a small pinkish infant. At a somewhat later point he is not only larger but he has altered by the eruption of such additions as hair and whiskers. At a still later point in time he is bent over and thinner and the hair at least has disappeared. All these, say the relativitists, are mere appearances of the man. A real man is an unchanging entity, existing both in time and in space, or rather in the inseparable blend of space-time which is the only thing that is real. This reality of mankind is a curious, difficultly visualizable something like a four-dimension sausage, stretching out in time over the whole life of the man and twisting from point to point in space as the man occupies, during what we call his lifetime, one place or the other therein.

At first hearing these ideas are apt to impress anybody as utter nonsense, just as the Chinese language will do if you hear it for the first time. Yet you know that intelligent people do manage to converse together in the hodge-podge of sounds that the uninstructed hear when Chinamen talk. Equally may you be assured that the banishment of space and time from the universe and the substitution of an indivisible blend of space-time makes sense. It is merely unfamiliar. It disposes forever of the

old idea of motion as a fundamental. The second leg of the 1895 tripod will never be repaired. But philosophy promises to find in Dr. Einstein's viewpoint a far better tripod leg on which to rest its thoughts.



The third leg of the tripod, the theory of light, has fared no better than the others. Equally crumbled in the stress of the last quarter of a century, it has not yet been repaired. Physics is worse off for a theory of radiation than it has been for three hundred years. The familiar wave theory, which considers light to consist of waves in the ether much like water waves on the surface of the sea, is on trial for its life, if, indeed, it has not already accepted the executioner. Some of the facts about light, the theory explained very well, better than any other theory has been able to explain.

Of these successes the few remaining friends of the wave theory continue to make the most. But there are other stubborn facts which such wave-theory apologists find it necessary to forget, like the Scotch divine who felt it inadvisable to preach on Predestination and on Free Will within six Sundays of each other. These facts suggest that light travels, not in waves, but in small separate bundles, like a quiver full of arrows.

For ten years there has been trouble over this conflict. Certain facts about light, only the wave theory will explain; certain others, only the particle theory explains. Until the past two years this seemed as hopeless a deadlock as the famous logical one between the irresistible force and the immovable body.

Recently, there has appeared a hope.

Studying the effect of streams of electrons impinging on thin sheets of metallic nickel, two young American physicists, Dr. C. J. Davisson and Dr. L. H. Germer of the Bell Telephone Laboratories, in New York City, made a discovery probably quite as important for future rebuilders of the foundations of science as was the discovery of radioactivity. They discovered that the electrons went through the thin film of nickel atoms as though the electrons were light rays or, more exactly, as though they were composed of the light-like but more penetrating radiations of X-rays. The experience has been amply confirmed. No one doubts any longer that electrons, if not actually waves—as are light-waves—are in the language of the drug-clerk, something just as good.



The ghost of the poor professor, back on a visit to the ruins of 1895 might think that all was destruction; that physics and chemistry had suffered a visitation of intellectual vandals. That would be natural but wrong. The constructive accomplishments may not be so spectacular, being foundations which are still mainly underground. But they are firmer than ever before and the superstructures, either brand new or reconstructed, are rising rapidly.

This is nowhere more evident than in chemistry. The chemistry of 1895 had degenerated into a variety of cookery. Chemical elements were put together industriously into new combinations. New dyes were made to provide new colors for fashionable women to remember. New drugs

were produced, and one or two turned out really to have some value. But basic theories stood still. The billiard-ball conception of the atom was sterile. Chemists did not even need to remember it in order to do their daily jobs. Some of the best factory chemists, in fact, were "practical" men, graduated into the laboratory from the cooking-kitchens of the works themselves; men who knew no science at all and to whom it might have been distressing.

It cannot be said that this has changed, but it is changing. The proton-and-electron conception of the atom—for all that it, too, has gone the way of all theory—provided the first understandable idea of that mysterious force well named chemical "affinity," the force that makes one kind of matter prefer to unite only with certain other kinds. This secret lies, it is still believed, in excess electric attractions which the forces manifested in protons and electrons have left over for outside use after their internal likes and dislikes have been adjusted. By studying these electric properties of atoms, chemists have made important progress toward doing what we want with the raw materials of the world instead of letting chemical affinity do what it wants with us.

Mankind is not satisfied with iron ore and limestone; we must turn them into steel and concrete. This is chemistry's job. It is reasonably certain that what has been unlearned in the past thirty years about the foundations of science will aid this job more than all the previously accumulated learning of mankind. That fact alone would acquit all the scientific iconoclasts of the century,

should irritated conservatives hail them before the bar of progress.

One more matter is as important practically as it is theoretically. This is the relation of matter and energy. The fundamentals of the material universe are now suspected to be some kind of elusive waves which create electrons and protons. Aside from these there is one other great experimental fact in the universe, that of radiant energy. This includes light and radio waves and the X-rays and all other varieties of what we once called the "ether wave" series. There remains the problem of what these are and of how they are related to protons and electrons.

That relations exist is certain. Light is always produced by atoms, never otherwise. One of the conclusions from the Einstein theories is the possibility of converting protons or electrons into radiant energy, a process believed actually to be occurring in the sun and other stars. How does this happen? Can the reverse effect occur, producing matter from light? These may probably be called the fundamental problems of science at the moment.

Matter and electricity and light are experimental facts. We cannot leave them alone if we wish to understand the world. Undoubtedly the three are linked together; very probably as mere differing aspects of the same reality, like three sides of an ivory die. To discover that reality, is the task of physicists and chemists who will be building presently on top of the philosophical foundations which the generation now passing has torn down and rebuilt.